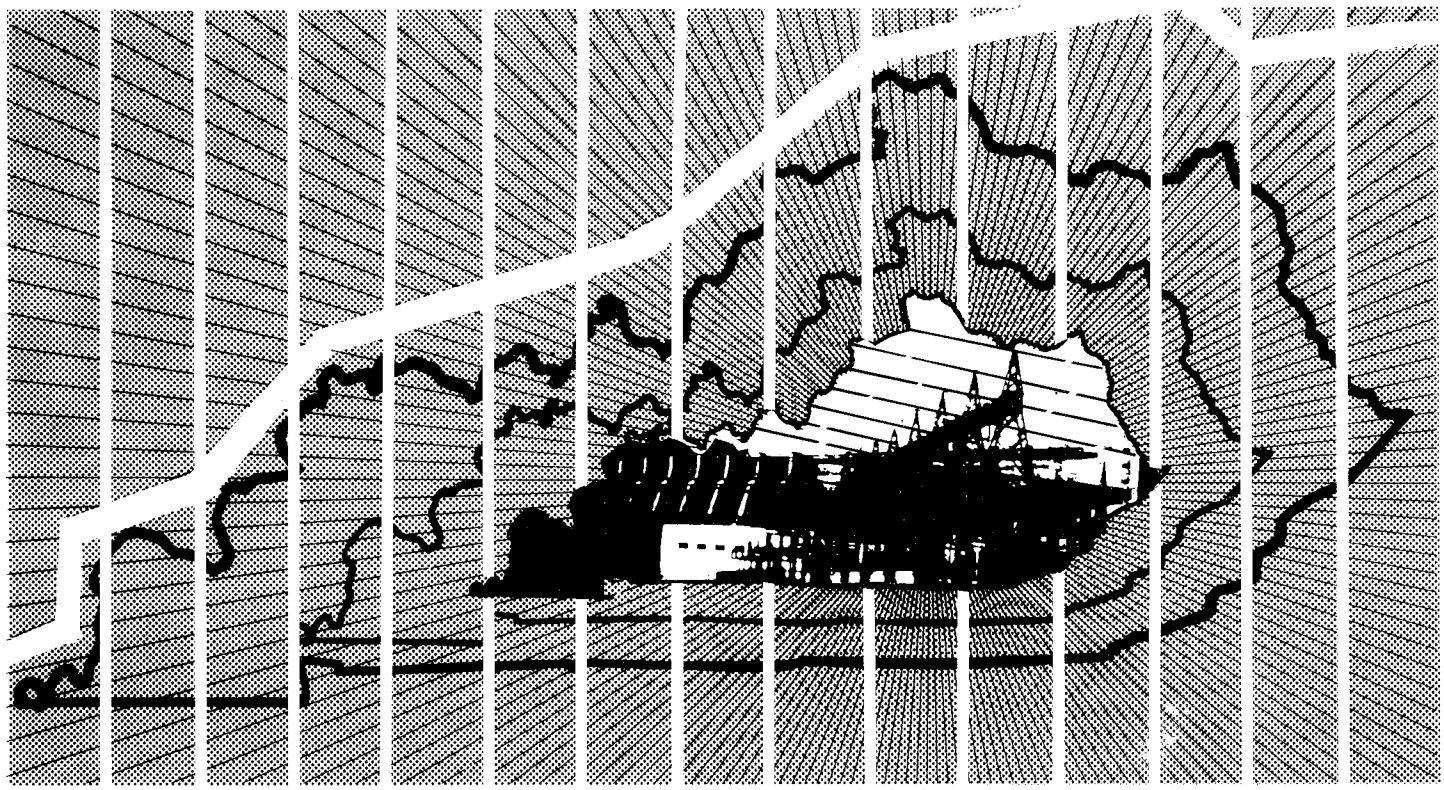
RISING ELECTRICITY RATES

CURRENT ISSUES



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RISING ELECTRICITY RATES: CURRENT ISSUES

Prepared by

Linda Kubala

Research Report No. 136

Legislative Research Commission
Frankfort, Kentucky
September, 1977

This Report has been prepared by the Legislative Research Commission and paid for from state funds.

FOREWORD

Rapid increases in the cost of electricity have caused considerable public concern. Numerous changes have been proposed which might slow these increases or give relief to certain segments of the population. However, the issues which must be addressed are often technical and complex, making it particularly difficult for the public to determine which of several courses of action is the most appropriate.

This report examines reasons for the rising cost of electricity and analyzes several issues likely to confront the General Assembly in 1978. The study of electricity rates in Kentucky was directed by Senate Resolution 61, passed by the 1976 General Assembly.

The study was conducted by Linda Kubala in conjunction with the Public Utilities Subcommittee of the Interim Joint Committee on Public Utilities and Transportation, chaired by Senator William L. Sullivan. The manuscript was prepared by Susan Eastman, Susan Harding, Cheryl Jenkins, and Jayne Wise.

VIC HELLARD, JR.
Director

The Capitol
Frankfort, Kentucky
August, 1977

RISING ELECTRICITY RATES: CURRENT ISSUES

CONTENTS

SUMMARY

After three decades of decline, electricity rates began to rise in the late 1960s. Rates have gone up faster than the overall cost of living since 1971, so consumers are faced with paying larger amounts of their income for a service they have learned to take for granted. The cost of producing electricity, and with it the cost to consumers, will almost certainly continue to increase in the near future.

There are many reasons for rising electricity prices, some of them beyond the control of the General Assembly or electric companies. Companies benefited from stable fuel prices for many years; fuel prices have skyrocketed since 1970. In the past, utilities were able to lower costs by building larger plants and utilizing improved technologies; today, improved efficiencies no longer offset the higher costs of constructing new generating capacity. Pollution control equipment has helped preserve the quality of our air and water, but also has added to the cost of producing electricity.

Consumers understandably are concerned by the increasing costs and have proposed numerous solutions to industry problems. Responsible action by the legislature, utilities and consumers may minimize rate increases and assure that the burden of higher rates is shared fairly by all customers.

Issues surrounding the industry and its rates are complex and in many cases are very technical. Certain topics were raised repeatedly during the investigation for this study and are likely to confront legislators during the 1978 Session. These issues are as follows:

1. Operating Expenses and Rate Base. There is a widespread belief that utilities pass unnecessary expenses on to consumers. Consumer groups argue that expenses for charitable contributions, advertising and promotion should not be passed on in rates. Utilities in some states must undergo management audits to show whether they are being run efficiently. Controversy also surrounds the inclusion of construction work in progress in the rate base.

2. Fuel Adjustment Clauses and Coal Buying Practices. The fuel adjustment clause is poorly understood, although it is part of the rate structure and amounts charged are regulated through the Public Service Commission. Since this clause allows utilities to pass fuel costs on to the consumer quickly, it is felt that this removes any incentive to get the best possible price for fuel.

3. System Expansion. Critics argue that utilities are building more capacity than actually is needed to meet demand. The cost of new plants is a major reason for rising rates.

4. Sales Tax on Electricity Bills. Since electricity is a necessary commodity, legislation was introduced during the last Session to remove the sales and use tax from residential electricity bills. Similar legislation is likely to confront legislators during the coming Session as well.

5. Alternate Rate Structures. Current electricity prices are based on declining block rates. Customers who use small amounts of electricity pay more per kilowatt-hour than those who use more. Critics argue that these rates no longer reflect the cost of serving customers, that they provide no incentive to conserve energy, and that they do not help the industry reduce its peak loads. Several other rate designs have been proposed which might better reflect costs or might improve load management.

6. Rate Relief for Citizens on Low or Fixed Incomes. Increases in electricity rates have been hardest on poor residential households. Several proposals have been made to lower the cost to these customers. Lifeline rates would provide a minimum amount of electricity to customers at a low price and additional amounts at higher rates. Utility stamps, patterned along the lines of food stamps, would provide a government subsidy to low income users.

7. Confusion over Bills, Rates and Utility Policies. Many consumers feel that their electric bills should contain rate information to inform them exactly what they are paying for. Each company employs a somewhat different rate schedule, making comparisons between companies extremely difficult. Company policies may differ between utilities, although general rules are set by the Public Service Commission.

These issues require responsible solutions. The electric industry is heavily regulated, and it can be argued that excessive and conflicting regulation has added to the burden of higher rates. Care should be taken that the impact on various segments of society be considered before legislation is enacted.

CHAPTER 1

INTRODUCTION

The cost of electricity in Kentucky is increasing rapidly and will almost certainly continue to increase in the near future. Residential rates have gone up faster than the cost of living since 1971, so consumers must spend a larger portion of their income for a service which many have come to take for granted. During the past winter some elderly Kentuckians had to pay more for electricity than they received from Social Security. Residents of all-electric homes may pay more for utilities than for house payments.

These recent increases follow three decades of declining rates coupled with rapid expansion of the electric industry. Declining block rates and industry promotion encouraged consumers to increase electricity consumption. Reliable and inexpensive power attracted a number of new industries to the state.

Rising rates are not evil in and among themselves. Today's rates reflect in part the realization that we cannot indefinitely pollute the air and water, leave strip mine land unreclaimed, or waste non-renewable fossil fuels in order to have cheap power. Kentuckians on the average continue to enjoy some of the lowest electricity rates in the country.

It is understandable that consumers are worried about the trend toward higher and higher rates. They have shown a renewed interest in the management and regulation of electric companies and have proposed numerous ways to minimize costs or distribute them more fairly among consumers. Changing trends in marginal costs and demand for electricity have caused problems which must be addressed. Without some sort of rate relief, poor and elderly citizens of the Commonwealth may become unable to pay the cost of heating their homes.

The 1976 General Assembly responded to the problem of rising rates by passing Senate Resolution 61 (Appendix A) which requires a study of:

1. Reasons for rising electrical utility rates;

2. Different methods of rate structuring; and

3. Current practices of the Public Service Commission and the public utility companies as they pertain to the fuel adjustment charge.

The study was to be conducted by the LRC staff and the Joint Interim Committee on Public Utilities and Transportation.

This study builds upon the earlier work of the Special Advisory Commission on Electrical Utility Rates and Regulation, appointed by the Governor in June 1975 to study all major facets of the electrical energy problem in Kentucky. This Commission issued a final report in December 1975 with recommendations for consideration by the Governor. (Appendix B) Some of these recommendations were incorporated into House Bill 842 (Appendix C) passed by the 1976 General Assembly, which amended KRS 367.160, 15.105, and various sections of Chapter 278.

The present study uses much of the statistical information collected for use by the Special Commission. It also builds on the Commission's work by investigating whether its recommendations on rates are being implemented, and by identifying issues which may require legislative action during the next Session.

The Public Utilities and Transportation Committee held a series of meetings to investigate the issues raised in Senate Resolution 61. Chairman Barkley Sturgill of the Public Service Commission described to the committee actions taken to implement the recommendations of the Governor's Special Advisory Commission. Attorney General Robert Stephens explained the expanding role of his office in utility rate cases. The Public Utilities Subcommittee also held two public hearings to obtain input from consumer groups and utilities on the subjects covered by Senate Resolution 61. Minutes from these meetings are found in Appendix D.

The following study is divided into three sections. The first, Chapter 2, briefly describes characteristics of the electric industry in Kentucky and discusses major reasons for rising electricity costs. Many of the factors causing rates to increase cannot be changed by better utility management, tighter regulation, or new state laws. However, critics have suggested several areas where costs might be reduced or where costs could be distributed differently among consumers. The second part, Chapter 3, of the report considers these issues and changes which might be made. Finally, the third part, Chapter 4, analyzes recent decisions by the Public Service Commission in an attempt to determine Commission stands on a variety of rate issues.

CHAPTER 2

AN OVERVIEW OF THE INDUSTRY AND RISING PRODUCTION COSTS

THE ELECTRIC INDUSTRY IN KENTUCKY: AN OVERVIEW

Kentucky's electric industry is made up of 4 investor-owned utilities, 28 rural electric cooperatives, 28 municipal systems, the Tennessee Valley Authority, the Corps of Engineers, and 2 miscellaneous systems.

The 4 investor-owned systems are: Kentucky Power Company, Kentucky Utilities Company, Louisville Gas and Electric Company, and Union Light, Heat and Power Company. Together these four companies serve about 59% of all electricity consumers in the state.

There are 28 Rural Electric Cooperatives (RECCs) in the state. Most of these serve only a one or two-county area. They purchase power wholesale from TVA, Kentucky Utilities or one of the generating cooperatives. Together they serve about 29% of the state's electrical consumers. The distributing co-ops are technically consumer owned.

During the 1960s Kentucky cooperatives joined together to form two generating cooperatives: Big Rivers Electrical Corporation, serving three cooperatives in Western Kentucky, and East Kentucky Power Cooperative, serving 18 distributing cooperatives in the eastern part of the state.

The 28 municipally owned electric systems in Kentucky serve about 13% of the state's consumers. Only three of these systems own and operate their own generating facilities. The remaining municipalities purchase power wholesale and operate their own retail distribution systems.

The Tennessee Valley Authority and the Corps of Engineers also generate electric power in this state. Nationally, TVA is the only Federal power-producing agency which constructs, owns and operates coal and nuclear power plants. It also is the only Federal agency that has responsibility for meeting all power supply requirements in its service region, which is part of seven states, and may itself issue revenue bonds to meet its capital needs. TVA provides electric power to five Kentucky rural electric cooperatives and 13 municipal distribution systems in Kentucky. The agency has no direct retail sales to residential customers but does directly serve a number of large industries.

The Corps of Engineers operates two hydroelectric generating facilities in conjunction with flood control dams on the Cumberland River. The power generated by these plants is used by Federal installations in the area or sold to TVA for resale.

Two miscellaneous systems are Berea College, which distributes electricity to the college and adjacent customers, and Jellico, a municipal system in Tennessee which serves part of Kentucky adjacent to that city.

Responsibilities of the Public Service Commission

Under KRS Chapter 278, the Public Service Commission is charged with the responsibility of regulating the rates and quality of service of most agencies providing electric, gas, water, telephone, and sewer services. In addition, the Commission is responsible for administering the provisions of the Federal Occupational Safety and Health Act (OSHA) as it applies to regulated utilities.

The Commission is responsible for regulating utilities within the state. The Federal Power Commission monitors and regulates electric utility activities which cross state lines. The basic authorities of the Public Service Commission are to:

1. Grant certificates of public convenience and necessity for the construction of all new facilities, and for the acquisition or extension and improvement of existing facilities;

2. Supervise and control utility services;

3. Supervise and direct utility accounting;

4. Fix utility rates;

5. Supervise the financial transactions of utility companies; and

6. Investigate consumer complaints.

In short, the Public Service Commission has the authority to regulate virtually all aspects of the business of those utilities under its jurisdiction, following guidelines set out in the statutes.

Commission jurisdiction does not extend to all electric companies in the state. Municipally owned utilities are exempt. Furthermore, the Public Service Commission has no direct authority or supervision over the Tennessee Valley Authority or the Corps of Engineers. However, both the Tennessee Valley Authority and the Public Service Commission have claimed authority to oversee retail rates for Rural Electric cooperatives who buy power from TVA.

Through its regulation of investor owned and rural cooperative electric utilities, the commission oversees rates charged to nearly 90% of Kentucky electricity consumers.

REASONS FOR RISING COSTS OF ELECTRICITY

During the past ten years there have been major changes in the long-term economics of producing electricity. After several decades of declining unit costs and periodic rate reductions to consumers, these costs now are rising even faster than the general inflation rate. Careful management and legislative action can insure that increases are justified, but it should be recognized from the onset that some factors are beyond the control either of utilities or of the General Assembly. Higher fuel and labor costs have occurred and will continue to force rates higher in the future. These and other significant causes of rising costs are discussed in this section.

General Inflation

According to the Consumer Price Index, families had to pay over $1.80 in 1977 for goods and services which cost them $1.00 ten years ago. Increased costs of everything from labor to equipment have affected electric companies by increasing operating costs.

Cost of Fuel

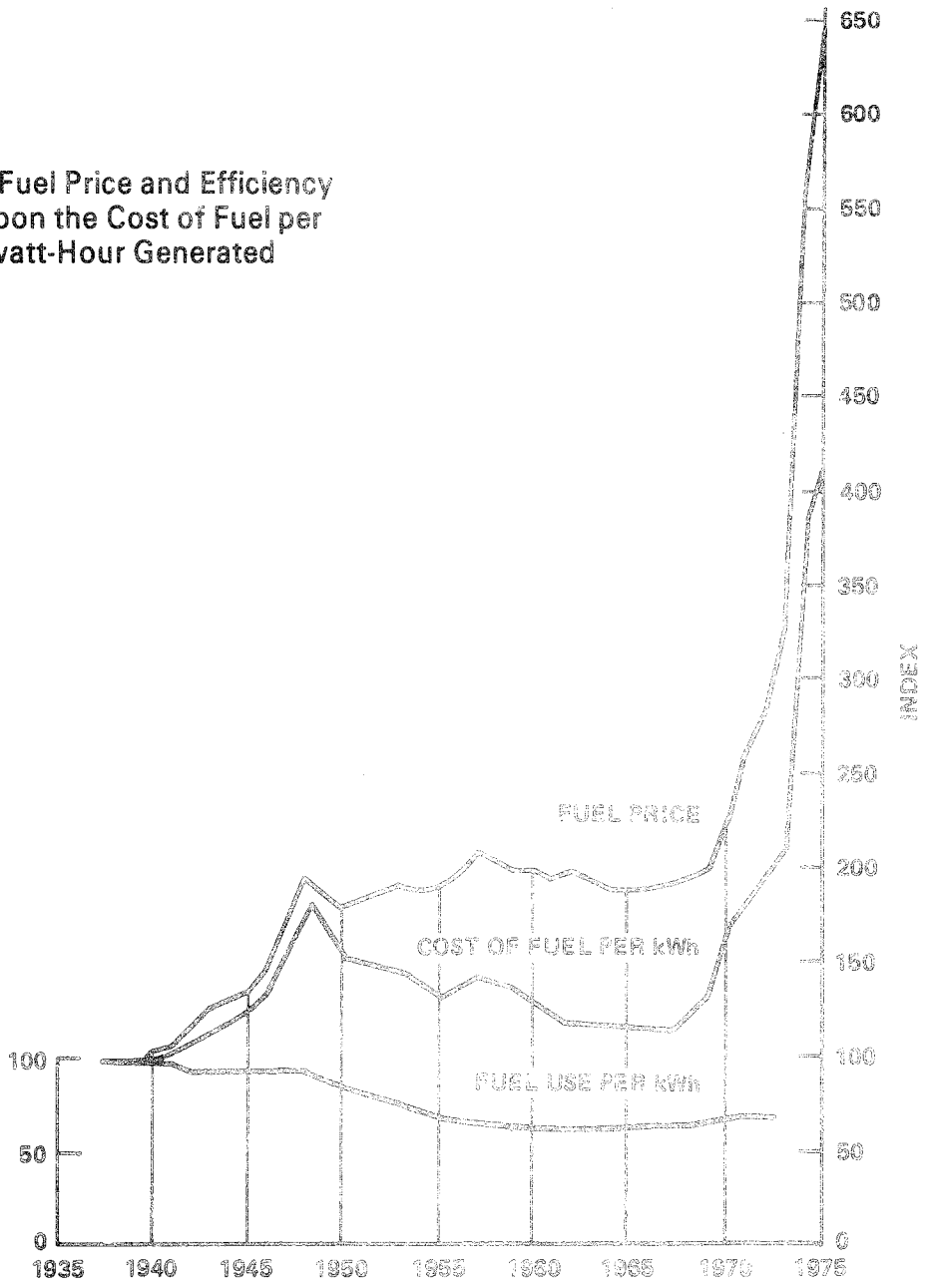
The largest single item of operating expense for most utilities is the cost of fuel. The Federal Power Commission estimates that fuel costs comprised about 32% of the total annual costs of electric utilities in 1974, or about 71% of the operating costs of producing power. (See Appendix E, Exhibit 1) These figures differ somewhat for each utility, but are fairly representative for Kentucky's generating plants.

The figure on the following page shows trends in the cost of fuel and in the fuel costs of producing a kilowatt-hour of electricity. Fuel prices were remarkably stable from 1950 through the later 1960s, but tripled between 1970 and 1975. The effect of these increases on electricity rates are painfully apparent to consumers, who see the rising fuel adjustment charges and surcharges on their bills.

Most of Kentucky's electric utilities purchase coal under 20, 30, or even 50-year contracts. They were spared the extreme fluctuations in price which occurred during the oil boycott and can still purchase coal at favorable rates. All fuel contracts, however, contain escalation clauses, so even purchases made under long term contracts are affected by the rising costs of coal. This is discussed in more detail in Chapter 3 of this paper.

In testimony before the Public Utilities Subcommittee, Louisville Gas and Electric reported an increase in its coal prices from $5.63 per ton in 1970 to $16.63 per ton in 1977. Kentucky Utilities' price went from $4.58 in 1965 to $20.87 today, and TVA reports an increase from $7.43 to $20.32 per ton in just four years.

Effect of Fuel Price and Efficiency of use upon the Cost of Fuel per Kilowatt-Hour Generated



Note: Data are for the total electric utility industry, 1937-75, including Alaska and Hawaii after 1963
Data are for all fuels used, expressed in equivalent units of coal.

Data Sources: 1937-1958, Federal Power Commission
1959-1975, Federal Power Commission and Edison Electric Institute

Source: Federal Energy Administration, *Electric Utility Rate Design Proposals*, 1977, p. 62

Costs of Adding or Replacing Generating Capacity

For many years utilities were able to maintain low rates despite overall inflation. In part this was because as demand increased, larger and more efficient generating plants could be built to take advantage of economies of scale and new technologies. Although these new plants cost more to build, they could produce electricity more cheaply in the long run, thus lowering rates.

Today the slightly higher efficiency of new plants no longer offsets the drastically higher construction and operating costs. The cost of producing a kilowatt of electricity from a new plant is greater over the life of the plant than the cost of producing the same kilowatt from an older plant.

Electric utilities are among the most capital intensive of industries. In 1975 Fortune estimated that behind every $1 of revenue collected annually by a utility, there is no less than $4 of capital investment. The higher cost of new construction affects rates drastically. Net investment is an essential element in the determination of utility rate requirements. Increased net investment due to higher construction costs affects rates in triple fashion. First, net plant investment less accumulated depreciation forms the major portion of the rate base, the amount on which utilities are allowed to earn a percentage return. Second, the expenses of depreciation and amortization constitute an important part of the annual expenses for which the utility is reimbursed. Third, the cost of debt and equity associated with net plant investment are the determining factors in the percentage rate of return on the rate base which is allowed a utility.

The Federal Power Commission in its Statistics of Privately-Owned Utilities in the United States reported that in 1974 fixed costs for fossil-fired steam power plants averaged about $136 per kilowatt of capacity. At the hearings conducted by the Public Utilities Subcommittee, utilities in Kentucky reported costs between $214 and $500 per kilowatt for plants going into operation between 1976 and 1980.

Cost of Capital

The cost of capital required to finance system expansion also has increased substantially. For many years utility bonds or preferred stocks were considered extremely safe investments, and electric utilities could borrow money at low interest rates. Today utilities have lost some of this aura of safety; at the same time interest rates have increased throughout the economy. Thus, utilities must pay higher costs for new capacity and also higher interest rates on the money borrowed for this purpose. Kentucky Utilities Company reports that interest costs on its first mortgage bonds have risen from 3% in 1947 to 9 1/4% in 1976. In 1949 Louisville Gas and Electric issued bonds with a cost of 2.68% and as late as 1966 sold bonds at 5.5%. The latest bond issue was sold at an annual cost of 8.44%. East Kentucky Power Cooperative reported paying a composite interest rate of 6.41% on capital for its Spurlock No. 1 plant, placed in operation this year. Initial capital for Spurlock No. 2, to be completed in 1980, cost 7.8%. Similarly, Kentucky Power Company reported an increase from 6.61% in 1975 to 8 7/8% in 1976.

Construction Delays

During the past few years citizen groups have vigorously opposed the construction of new generating plants. They may argue that the new facility is not necessary or may oppose the site selected for the plant. These groups have utilized regulatory and judicial machinery to slow the construction of several new generating facilities. This, together with the need for an increasing number of permits and studies, has added several years to the time required to put a new facility into operation.

The permits, environmental studies, and in some instances, litigation help assure that a proposed plant really is needed and that it will not cause excessive damage to the environment or to a nearby community. However, these delays are costly both to the utility and to consumers. Inflation increases the cost of the new plant every week or month construction is delayed. An example of this is the Spurlock No. 2 plant being built by East Kentucky Power Cooperative. Pending lawsuits delayed the start of construction on Spurlock No. 2 by about six months; if the suits are successful, construction could be halted altogether. East Kentucky Cooperative claims that it has lost $102,547 per day because of this delay due to loss of sales, interest during construction on items already purchased, escalation of items ordered, and storage of materials at the site. Opponents claim that the additional plant is not needed and that electricity customers will have to pay much higher rates due in part to the unnecessary construction.

Cost of Meeting Environmental Standards

Part of the increased electricity costs come from Federal laws to protect the nation's air and water from excessive pollution. To meet emission standards required under the Clean Air Act of 1970 and the Water Pollution Control Act, utilities must either burn low-sulphur coal or equip their plants with scrubbers to remove sulphur. They must install precipitators to remove most of the fly ash and particles from the stack gas and build settling ponds or otherwise assure that clean water is returned to the streams. These restrictions were mandated by a population increasingly concerned with the quality of the environment. However, it costs money to make electricity from coal without polluting the environment. This cost is translated into higher electricity rates.

In Kentucky, air emission standards have been established for particulates and sulphur dioxide emitted by both new and existing plants and for nitrogen oxides from new plants. Most plants have installed electrostatic precipitators to remove particulates from the stack emissions.

Controversy over the clean air standards has centered on sulphur dioxide emissions. Existing plants may emit up to 6.5 lb. of sulphur per million BTU, depending on their county of location. These requirements can be met by burning coal with a moderate sulphur content or by washing high-sulphur coal before use. Plants built after 1972 are allowed to emit a maximum of 1.2 lb. of sulphur per million BTU; older plants in some parts of the state also have lower allowed emissions. Without special equipment these standards can be met only by burning extremely low sulphur coal, which is quite expensive and may be difficult to obtain. The alternative is to install flue gas desulphurization equipment, or scrubbers, to remove the sulphur dioxide.

Scrubbing flue gas is extremely expensive, given current technology. The scrubber on a 60 megawatt unit of Kentucky Utility's Green River power plant cost $64 per kilowatt of capacity; operation and maintenance costs add about 0.202 cents per kilowatt-hour. East Kentucky Cooperative estimates that in 1982 a scrubber on a 600 megawatt power plant will cost nearly $100 million. Operation and maintenance of the scrubber may add an additional 10% to 20% to the cost of each kilowatt-hour produced. Estimates of capital and operating cost provided to the Public Utilities Subcommittee are included in Appendix E.

Generally, utilities have tried to avoid installing flue gas desulphurization equipment by burning low-sulphur coal; an exception is Louisville Gas and Electric Company. Companies argue that scrubbers have not been proven effective enough to warrant such large investments. The industry also is looking at alternate technologies which might make current scrubbers obsolete.

CHAPTER 3

CURRENT ISSUES RELATED TO ELECTRICITY RATES

The era of declining electricity costs is over. Perhaps at some future time efficient use of wind, sun, or ocean currents will again lower costs. Unless or until this happens, consumers as a group must pay more for the energy they consume. One speaker before the Public Utilities Subcommittee estimated that the cost of power would increase by 250% in the next seven years.

This does not mean that nothing can be done to minimize costs or distribute them more equitably among consumer classes. Higher rates have placed a heavy burden on some segments of society and have created problems which must be addressed by the legislature, the Public Service Commission, or the electric companies. The problem is not unique to Kentucky. The federal government currently is considering a number of bills which would change the character of the electric industry and the structure of rates.

Issues surrounding the industry and its rates are complex and in many cases very technical. The topics considered in this section are those which seem to cause the greatest concern either to consumers or to the utilities. Questions of fuel buying practices, rate structures, management efficiency and excess capacity were raised repeatedly during the investigation and are likely to confront legislators during the 1978 Session. These popular issues are discussed in some detail in this chapter.

OPERATING EXPENSES AND RATE BASE

When setting the rates which can be charged by a utility, the Public Service Commission first establishes the total revenue needed to cover necessary operating costs, repay debt obligations, and give owners a reasonable return on their investment. The Public Service Commission must ensure that utilities under its jurisdiction remain financially sound and at the same time provide reasonable service to their customers. Unless there is strong evidence to the contrary, the Commission traditionally has assumed that the utility is managed efficiently and that costs incurred are necessary. This presumption has a long legal history, summed up in a Supreme Court decision of 1935:

> Good faith is to be presumed on the part of the managers of a business...In the absence of a showing of inefficiency or improvidence, a court will not substitute its judgment for theirs as to the measure of a prudent outlay. (West Ohio Gas Company v. Ohio Public Utilities Commission, p. 72)

All expenses nevertheless are subject to review by the Commission. Rising electricity rates have focused popular attention on certain costs and on the management efficiency of regulated utilities. Some of the major issues are summarized below.

Charitable Contributions

Electric companies in the past have made sizeable contributions to charities and community projects. They argue that such contributions benefit the whole community and enhance public relations. Critics contend that these are not necessary costs of providing service and that customers should not be forced to contribute to such causes through their electric bills. The Public Service Commission has disallowed charitable contributions during the past year, stating that they should be absorbed by investors, not customers.

Promotional and Advertising Expenses

Since electric companies are monopolies, it is argued that they do not need to advertise or otherwise promote their services, and that this is particularly true since the current emphasis is on conserving rather than promoting energy use. Consumers have become very critical of advertising and of promotional fairs and contests held by some of the rural cooperatives. Although these activities are highly visible, they contribute very little to total costs. Institutional advertising can benefit consumers as well as utilities by informing the public about new services, providing energy-saving ideas, or encouraging off-peak electricity use. So far the Public Service Commission has allowed these expenses to be passed on to customers.

Management Efficiency

Regulatory commissions throughout the country are giving more attention to the management of utilities under their jurisdictions, in reaction to public outcry over increased rates. During the 1970s, utilities have been forced to seek substantial rate increases on a nearly annual basis. Consumers often protest very effectively that the increase would not be necessary were the applicant properly managed; as a result the commissions have begun to look for solid evidence for either denying the requested increases or rejecting claims of intervenors that management is inefficient.

These conditions have given rise to increasing use of management audits, which are studies of current staffing and procedures of the utility. These audits, usually conducted by independent consultants, are to demonstrate whether the company is being managed satisfactorily and to identify areas for improvement. Several states, including New York, Connecticut, and North Carolina, require such audits of all regulated companies. Others require audits at the discretion of the regulatory body. The Kentucky Public Service Commission recently required that Big Rivers Rural Electric Cooperative undergo such an audit.

Commission mandated audits have been criticized as ineffective and therefore as a waste of money. Studies of management efficiency nevertheless are likely to become more common in the future.

In addition to the items listed above, specific utilities have been criticized for allegedly paying excessive salaries to executives, paying high prices for supplies obtained from subsidiaries, and for incurring a variety of other questionable expenses. The Public Service Commission may disallow any expenses which are not necessary and reasonable. Since the Commission depends

on information provided by the utility, it may be difficult to identify abuses when they occur. The Attorney General's office provides a valuable service in this respect. Members of the Consumer Protection Division intervene on behalf of consumers in major cases before the Public Service Commission. In many cases they are able to bring opposing arguments to the attention of the Commission and identify issues in specific cases.

Administration, advertising, and similar expenses make up only a small portion of costs incurred by electric companies. Because these expenses are visible and easily understood by the public, they have taken on an importance greater than their share of total costs.

Construction Work in Progress

The treatment of construction work in progress when figuring rates is given considerable importance by utility experts but has not become a popular issue. Utilities are allowed a rate of return, or profit, on the value of their investments. These investments are commonly referred to as the rate base. These revenues are in addition to amounts needed to cover actual expenses. Critics argue that no profit should be allowed on a new plant until it actually is providing some service to consumers. Treatment of construction work in progress can have a significant impact on rates of some companies, considering the huge amounts of investment affected.

The Kentucky Public Service Commission usually allows a reduced rate of return on construction work in progress. This issue is treated in more detail in Chapter 4 of this study.

FUEL ADJUSTMENT CLAUSES AND COAL BUYING PRACTICES

Fuel Adjustment Clauses

Fuel adjustment clauses enable utilities to pass increases or decreases in fuel cost directly through to consumers. They are based on the premise that fuel market prices are highly volatile and largely beyond the control of utilities. Fuel adjustment clauses have been used in Kentucky since the 1940s; by 1958 the vast majority of electric utilities in the United States had adopted them. Most of the clauses were applied only to commercial and industrial users since the cost of administering a residential fuel clause was thought to be greater than the potential revenue gain. In recent years the advent of computerized billing has made it easier for utilities to include fuel adjustment clauses in electric rate schedules of all kinds.

Fuel adjustment clauses received little attention from either consumers or regulatory authorities until the sharp rise in fuel costs during and after the 1973 oil embargo. Then these charges became a significant part of customer bills, which rose from month to month but never seemed to decrease. The automatic character of the clause seemed to bypass the ratemaking authority of the Public Service Commission and to lower the incentive of utilities to minimize fuel costs. Therefore, much of the outcry over higher electric bills has been directed at fuel adjustment clauses.

Much of the criticism of fuel adjustment clauses stems from misunderstanding of their operation and regulatory basis. An example will show the operation of a simple fuel clause. Assume that the permanent rate structure predicts a base fuel cost of $1 million during a given period and that energy sales to consumers are 100 million kilowatt-hours. This means that each kilowatt-hour sold has a permanent component of $.01 for fuel, which is included in the rate base.

Now assume that during that period actual fuel costs were $1.3 million, an increase of $300,000, or 30%. In its simplest form, the fuel adjustment clause would divide the $300,000 by the 100 million kilowatt-hours sold and arrive at a billing adjustment surcharge of $.003 per kilowatt-hour. A customer using 300 kilowatt-hours would have a total fuel adjustment charge of $.90 (300 kwh X $.003 per kwh). If the actual cost of fuel were $700,000, on the other hand, the customer would receive a credit of $.003 per kilowatt-hour on his bill.

The clauses currently in effect in Kentucky apply such a charge to all kilowatt-hours billed either to residential, commercial, or industrial customers. There are a few minor exceptions, such as electricity for street lighting, outdoor lighting, and traffic control.

If properly structured and used, fuel adjustment clauses save customers money in the long run through lower rates, especially in times of rising fuel costs. Fuel costs are the largest single operating expense for electric utilities. If fuel costs rise, a utility without an automatic adjustment clause must borrow the funds to pay the higher costs until a rate increase is allowed; interest expenses then must be paid by customers in addition to fuel costs. Without an automatic adjustment clause utilities also have to apply for rate adjustments more frequently. The costs for preparing these rate cases must be borne by the consumers of electricity.

Fuel adjustment clauses are an integral part of the tariff structure and are authorized and monitored by the Public Service Commission. Expenses which may be included and methods of calculation are specified in the tariff. The Commission also monitors company fuel purchases and the amounts charged under the fuel adjustment clause to ensure that the clause is being implemented properly.

The Governor's Special Advisory Commission on Electrical Utility Rates and Regulation studied the use of fuel adjustment clauses and commissioned a comprehensive study of procedures being used in Kentucky. The Commission recommended that the fuel adjustment concept should be retained. However, it criticized the diversity of fuel clauses in use by the different utilities and recommended that the Public Service Commission implement a uniform fuel adjustment procedure which would be used by all utilities under its jurisdiction. The Governor's Commission recommended that this clause:

1. Insure equitability for both consumers and utilities;

2. Facilitate the monitoring of utility performance in the computational and accounting as well as fuel procurement areas;

3. Be precise and specific in its language;

4. Be reviewed prior to approval and regularly subsequent to implementation, and be approved, publicized, and rigorously monitored by the Public Service Commission;

5. Provide for a rolling reconciliation, correcting any errors during a period in the succeeding period;

6. Minimize the recovery lag;

7. Utilize costs per kilowatt-hour basis exclusively; and

8. Utilize a zero, or as near zero as practical, fuel base.

The Public Service Commission has not yet designed nor attempted to implement a uniform fuel adjustment procedure. The clauses in effect continue to vary in almost all aspects. Changes in fuel adjustment clauses authorized by the Public Service Commission since release of recommendations by the Governor's Special Advisory Commission are as follows:

1. Two utilities decreased the lag between the cost period and the billing month

2. One utility increased its fuel base which is the amount of fuel costs included in the regular rates

3. One utility changed its calculating procedure from $.__/million BTU to $.__/kilowatt-hour. A majority of utilities under PSC jurisdiction still use the $.__/million BTU base for calculations.

The use of a uniform fuel adjustment clause would be desirable because it would be easier to monitor, would allow comparisons between one utility and another, and would be easier for consumers to understand. However, a standard Kentucky clause might cause problems to some utilities; a spokesman for Kentucky Utilities, for example, stated that the clause used by that company was mandated by the Federal Power Commission, which regulates its sale of wholesale power. The Public Service Commission cannot mandate the fuel adjustment procedures used by municipal electric or TVA distributors, so a uniform clause would not standardize procedures throughout the state.

The Public Service Commission has taken some actions related to the recommendations of the Advisory Commission. It has adopted procedures to monitor accounting and fuel procurement of utilities. It has revised a number of fuel adjustment clauses to insure that they are precise and specific and is now studying some areas where precision is particularly difficult, such as the inclusion of purchased power, line losses and heat rates. The Commission also has considered rolling reconciliation in succeeding periods but found that the accounting complications and the minute amounts involved do not warrant this procedure.

Coal Buying Practices

One of the main criticisms of fuel adjustment clauses is that since they allow utilities to pass on increased fuel costs to customers, utilities have no incentive to obtain the best possible price for fuel.

Even without automatic adjustments to rates, fuel costs would come under scrutiny by consumers unhappy with their high bills. Fuel is the largest item of operating expense for all but hydro-electric generation. Changes in fuel costs have a greater impact on customer bills than any of the expense items considered in the previous section.

About 95% of the electricity generated in Kentucky comes from coal, most of which also is produced in the state. The issue of fuel procurement thus focuses on prices paid for coal, sources of coal supplies, and relationships between coal producers and utilities.

Utilities have been criticized for not obtaining the best possible price for the coal they burn. These criticisms do not seem valid on closer scrutiny, although there are individual cases of poor buying decisions.

When they procure coal supplies, electric utilities must consider more than just the price of the coal offered. The utility must be assured of large volumes of coal of specified qualities for its various generating plants. All Kentucky electric generating utilities obtain coal through long-term contracts to supply at least part of their needs. Twenty or thirty year contracts assure reliable supplies and usually result in lower fuel costs. Until recently East Kentucky Rural Electric Cooperative obtained most of its supplies on the spot market, feeling that it could obtain lower prices in this way. This utility experienced difficulty when the price and demand for coal skyrocketed during 1973-74, and has since negotiated longer-term contracts.

Even long term contracts or ownership of coal reserves does not protect utilities completely from rising fuel prices. All contracts include some form of escalator clause to cover increasing costs to coal producers. In addition, stricter air pollution standards have forced most companies to buy low-sulphur coal for at least some of their facilities. Some facilities which burn high sulphur Western Kentucky coal must wash it first, which also has increased prices. According to a Public Service Commission staff member, utilities in Kentucky currently pay about $15 to $20 for Western Kentucky coal, and $18 to $35 for lower sulphur Eastern Kentucky coal under long term contracts.

In 1975 Ernst and Ernst of Louisville conducted a comprehensive survey of coal buying practices of utilities in the state at the request of the Governor's Special Advisory Commission. They found that in general the companies made every effort to obtain the best price on their coal supplies and that they carefully monitored the quality of shipments and requests for increased rates. They found that fuel procurement was considered a high-priority function and was handled by well-qualified staff. In a few cases Ernst and Ernst recommended that the company monitor its contracts more rigorously, but it found no evidence of "sweetheart contracts" or of suspiciously lax bargaining.

Big River Electrical Corporation recently was forced to buy its way out of a contract with Peabody Coal Company for $10,000,000. This case may have been the result of poor judgment, but also demonstrates risks which cannot be totally avoided by utilities trying to obtain the best possible coal supplies. Big Rivers also has two other contracts with Peabody with which there have been no problems and other equally successful contracts with other suppliers. In the disputed contract, Peabody agreed to develop a large mine adjacent to one of the Big River generating plants; Big Rivers agreed to purchase all coal

from that mine on a cost-plus basis. However, the coal proved to be of a quality which could not be burned economically at the plant and which could not meet the standards of the Environmental Protection Agency. Therefore, the contract, which should have provided low cost coal by avoiding all transportation costs, had to be voided.

During the hearings which it conducted on electricity rates, the Public Utility Subcommittee heard criticisms that the United States imports coal from as far away as Poland and Australia, despite large domestic reserves. Concern also was expressed about purchases of coal from western states for use in Kentucky. These do not appear to be serious issues at this time. Very little coal is imported relative to the huge production in this country. Imported coals typically are of a quality not found here and have properties needed for specific uses. At the present time only the Tennessee Valley Authority appears to be purchasing coal from the western states. Other utilities apparently purchase their low-sulphur coal from eastern Kentucky. The clean air requirements have had a negative impact on the sale of high-sulphur western Kentucky coal. Environmental Protection Agency standards require either that generating facilities burn cleaner coal or that they install expensive scrubbing equipment to remove the sulphur from the stack emissions. This has decreased demand for coal such as that mined in western Kentucky. Currently several projects are underway to test techologies which would burn this coal without releasing large amounts of sulphur into the air.

SYSTEM EXPANSION

The United States has one of the most reliable electric systems in the world. The system is built to cover maximum demand even in the case of plant outages. Many consumers take for granted that electricity is available at the flick of a switch.

This reliability costs money. The utilities feel that they have an obligation to expand to meet the maximum forseeable demand for power. They have built capacity more than sufficient to meet short demand peaks, such as those which occurred during the past winter. They also have built enough reserve capacity to meet demand even if the largest unit in the system is taken out for repairs. Since peak demands are infrequent, up to half of this capacity may be idle during most of the year.

The value of this excess capacity has been questioned in recent years. Today the cost of new plants is a major factor in increased rates. Critics argue that the rate of increase in electricity use has slowed, so the industry does not need to build all the new units it has planned. They argue that instead of building new plants, utilities should use better load management techniques to reduce peaks in demand. They also state that greater use of pooling arrangements would reduce the need for more capacity.

Utilities in Kentucky plan a 55% increase in generating capacity between 1975 and 1984, according to the Special Advisory Commission on Electrical Rates and Regulation. These figures do not include a 600 megawatt unit planned by Cincinnati Gas and Electric Company, which will be located on the Kentucky side of the Ohio River. Companies argue that this expansion is necessary to meet the growth in demand over the decade.

Since it takes several years to bring a new plant into operation, utilities must depend on five or ten year projections of demand to decide whether an additional plant is needed. In the past this demand has been easy to project, at least on a national or regional level. Electricity use increased at an almost constant level from 1950 to about 1970, so companies could project future needs with reasonable accuracy by simply extrapolating past trends. The rate of increase began to slow somewhat in the early 1970s, and national consumption decreased slightly in 1974 due to greater emphasis on conservation.

When applying for a permit for new construction from the Public Service Commission, utilities must provide load studies to show the need for additional generating capacity. The forecasts used for these studies, which essentially extrapolate past trends, have been criticized as unrealistic. Data from the Federal Power Commission supports the argument that demand for electricity is not increasing as fast as it did in the past. In 1974 the Federal Power Commission forecast that demand on winter-peaking utilities would increase 7.2% annually until 1985 and that summer-peaking utilities would add 7.4% each year. By 1977 the Federal Power Commission had lowered its ten-year projections to 6.0% per year for winter-peaking utilities and 5.9% for those which peak in the summer.

Several factors make it difficult to forecast accurately future demand for electricity. These include:

1. Effects of rising prices. Electricity use generally is considered price-inelastic in the short run, meaning that price increases do not noticeably affect the amount used. In the long run, however, customers may purchase more efficient equipment or alter habits, thus lowering their use of electricity.

2. Switch from other fuels. Higher prices or curtailments of oil and natural gas may cause greater dependence on electricity than in the past. Already natural gas shortages have greatly increased the number of new all-electric homes.

3. Economic growth trends. Growth in energy use depends in large part on industrial activity and per capita income trends. During the past 15 years of rapid economic growth, electricity use in Kentucky has increased somewhat faster than in the nation as a whole.

With the uncertainty about actual future needs, utility companies tend to plan facilities on the basis of high projections. In the past the Public Service Commission has not required that utilities submit sophisticated studies of demand which would take into account effects of price or the substitution between fuels.

Utilities can reduce their need for new capacity by interconnecting to form power pools. Although there are several kinds of pools, members essentially combine individual capacities to meet the needs of the several service regions. Since utilities peak at different times, and since they can rely on the backup capacity provided by a larger system, pools can increase the utilization of existing facilities and reduce the amount of new capacity needed. The Special Commission on Electrical Utility Rates and Regulation recommended that the Public Service Commission encourage coordinated planning with neighboring states and assure adequate overview of power pool planning.

All Kentucky generating utilities have interchange agreements with other companies to buy and sell power between areas as needed. Kentucky utilities also belong to the East Central Area Reliability Council, a group formed by the industry to augment the reliability and adequacy of bulk power supply in the region. Only a few Kentucky utilities have joined power pools which plan for new capacity as a unit.

Utilities have been criticized for not making sufficient use of pool arrangements. In the Spurlock No. 2 construction case, East Kentucky Cooperative was criticized for not first writing to its interconnected companies to see if purchased power could be used as an alternative to construction.

The Special Advisory Commission on Electric Rates and Regulation criticized the Public Service Commission for its passive stand on new construction. The Commission views its role as being primarily quasi-judicial, so it reacts to situations as they are brought before it. In reviewing and approving proposals, the Commission generally is limited to evaluating the accuracy of information presented by the utilities. The Special Advisory Commission recommended that the Public Service Commission actively assist in long-range planning for the industry.

SALES TAX ON ELECTRICITY BILLS

State and local taxes on the average add about 10% to the electric bill of the Kentucky consumer. Data on the comparable tax burden in other states are not readily available, but it appears that Kentucky taxes are moderate in relation to those charged elsewhere. The 5% state sales and use tax accounts for half of the Kentucky burden. This and the 3% school tax levied in 57 counties are the only taxes that are identified on the bill of the customer. Other taxes levied on Kentucky utilities are included in the rates.

Repeal of the state sales and use tax on electricity has been advocated publicly; seven bills providing for repeal were introduced during the 1976 Regular Session of the General Assembly. Most of these would have exempted all fuels for home consumption from the sales tax; and some included water, telephone, and sewer as well. One would have exempted only the aged, blind or disabled from the sales tax. None of these bills became law, but similar legislation is almost certain to be introduced during the next Session.

Those who would remove the sales tax from electricity bills argue that electricity, like food, is a necessity of life. Low income persons must pay a larger portion of their total income for electricity than the affluent, and those who use the smallest amounts of electricity pay the highest rates for what they use. Therefore, it is argued that the sales tax on electricity is a regressive tax, places an unfair burden on those least able to pay, and should be repealed.

Removal of the sales tax only on electricity would discriminate against households who heat or cook with other fuels. Therefore, exemptions for electricity usually are proposed together with exemptions for all fuels. Coal for home consumption was exempted from the sales tax in 1976.

The exact revenues derived from the sales of individual utilities are not available but can be estimated from data for all utility sales. Sales tax receipts from all utilities except telephone totaled $40,591,000 for fiscal year 1975-76. Receipts for fiscal year 1976-77 are expected to reach $47,000,000. From this data, individual utility revenues are estimated as follows:

Water	$ 2,350,000
Electricity	$31,900,000
Gas	$12,750,000

Usually exemption of utilities from sales tax is thought of in terms of exempting utilities for residential use, rather than exempting all use. Residential use would account for about one-half of the amounts listed above.

It is estimated that one-fifth of all Kentucky residences use fuel other than natural gas, electricity, or coal for heating. A rough estimate of the loss of revenue resulting from the exemption of other home fuels, such as fuel oil, bottle gas, and wood, is $4,500,000.

From this data it would appear that removal of the sales tax on residential electricity, natural gas and fuel would result in an annual loss to the state general fund of approximately $27,000,000. If industrial and commercial uses also were exempted, revenue loss would be about double this figure.

Exemptions could be limited to the elderly and disabled or to persons on public assistance. This would reduce the revenue loss, but the program would be more expensive to administer.

ALTERNATE RATE STRUCTURES

Current electricity charges are based on declining block rates. Customers who use small amounts of electricity pay more per kilowatt-hour under these rates than do large customers. Critics have charged that these rates no longer reflect the cost of service and that they provide no incentive to conserve electricity or to use it during off-peak periods. Several alternate rate structures have been proposed and are being tried in other parts of the country.

It generally is agreed that electricity rates should be based on the cost of service, so that each customer pays a fair price for what he receives. The Governor's Special Advisory Commission recommended that cost of service be the predominant element in the establishment of rates and that detailed studies be made to analyze the cost of serving different classes of customers. Rates may, in addition, include principles indirectly related to cost, or determined to be in the public interest. These include conservation, economic development, improved utility load factors, or aid to low income groups.

Although the concept is simple, no one agrees just how to relate the cost of providing electricity to individual bills. Three logical types of cost are associated with electric service, and should be included in the rates:

1. Demand or capacity costs; cost of production facilities needed to supply customers with electricity. These costs vary with the kilowatts of capacity required for the utility to meet its peak demand;

2. Energy costs; costs of producing a given amount of energy, which vary with the number of kilowatt-hours produced. The main components are fuel and maintenance costs; and

3. Customer costs; costs of serving an individual customer, which do not vary with the amount of electricity used. Administrative, billing and metering costs are included in this category.

Each of the basic rate designs discussed in this section is justified by cost of service principles. Differences stem from varied assumptions about the behavior of costs and methods of including these costs in a fair and understandable schedule of rates.

Declining Block Rates

The traditional rate structure, which is used throughout Kentucky, is called declining block. Under this structure customers are charged more for the first blocks of energy they use than for later blocks. Residential customers may have a minimum charge or service fee in addition to the energy charge, and large commercial or industrial customers must pay a demand charge. A simple declining block schedule is shown below:

RESIDENTIAL

First 30 kwh	$3.00 minimum charge
Next 100 kwh	6 cents per kwh
Next 500 kwh	2.5 cents per kwh
Next 800 kwh	2 cents per kwh
Additional kwh	1.7 cents per kwh

LARGE POWER RATE (industrial)

Demand charge	$1.40 per kw (maximum required at any one time during the month)
First 3500 kwh	2.3 cents per kwh
Next 6500 kwh	1.5 cents per kwh
Additional kwh	.7 cents per kwh

These rates essentially recover the three elements of cost described above and also include a promotional element, both with respect to promoting additional energy consumption and to promoting system expansion. In the past it could be argued that promotional efforts were compatible with cost recovery pricing and that the promotional efforts lowered the unit cost of electrical

energy and improved the standard of living. Expansion allowed the utilities to build more efficient plants, which lowered rates. The lower rates for tail blocks of electricity could be justified on the basis that the marginal cost of electricity was lower than average cost.

Rapid inflation and energy shortages have made declining block rates less appropriate. Today new generating facilities cost so much to build that electricity from these plants costs more than that from existing plants. Therefore, marginal cost, or the cost of producing an additional kilowatt-hour of electricity, is actually higher in the long run than the average cost of electricity now produced. Our national policy now is to conserve energy, not to promote its use. Those concerned with the plight of poor families also criticize the current rates. Customers with few appliances and low use must pay the highest rates and may actually subsidize more affluent residential customers.

Several alternate rate structures have been proposed, based on different assumptions about the cost of service. Rates aimed primarily at helping the poor or encouraging conservation are discussed in the next section.

Flat and Inverted Block Rates

Flat or inverted block rates have been suggested as a method of charging customers the higher costs of producing energy. Under flat rates, customers would be charged the same amount per kilowatt-hour, regardless of the amount used. Under inverted block rates, users would be charged more for each succeeding block of usage. Most proponents of flat or inverted rates would apply a uniform schedule across customer classes so that commercial, industrial, and residential users would pay the same rates. The result would be that customer and demand costs would not be charged separately.

Proponents of flat or inverted rates argue that since the incremental costs of supplying electricity are rising, it is proper to charge a higher rate for consumption in the tail blocks of kilowatt usage. The argument holds that incremental units of electricity production can be identified with the tail blocks of usage and should be charged a rate reflecting the long-run incremental cost. Initial blocks comprise only historic usage levels, according to this argument, and should be charged a reduced rate. Proponents also argue that the total cost of serving large customers does not differ appreciably from those of serving small customers.

If applied to all customer classes, flat or inverted rates would lower bills for all but the largest residential users. Inverted rates would almost double costs to industrial users, according to a recent study by the Federal Energy Administration. Large customers would have more reason to conserve electricity, so these rates might lead to decreased consumption.

Critics of flat and inverted rates charge that they are likely to increase electricity costs in the long run because large industrial users will seek alternate energy supplies and load factors will deteriorate. The electric utility must maintain sufficient generating and transmission facilities to supply the peak demands of its customers. The cost of these facilities must be recovered whether they are used continually at capacity or whether they are fully utilized only twice a year to meet a peak in demand. Large

industrial users, as a class, tend to use a constant amount of electricity over time, which stabilizes overall demand on the utility.

Time-of-use Rates

Time-of-use rate structures provide varying rates for electricity use at different hours of the day, week, and year. Such rates are currently in limited use in the U.S. either in rate experiments or for specific end-use loads, such as hot water heating. Time-of-use rate structures have been suggested as a means of improving system load factors, especially when used together with load management practices. They also are premised on a cost of service basis. It is argued that the costs of providing electricity vary not only with the amount and rate of consumption, but also with the time of consumption. The electricity supplied at peak times is more expensive because part of it is being produced from less efficient peaking plants, which may burn oil or gas rather than coal. Furthermore, users who contribute to the peak demands are thought to be responsible for the need for new facilities, and the cost of this expansion.

Specific proposals for time-of-use rates vary, although these usually retain different schedules for residential, commercial and industrial customers.

Customers willing to use electricity at off-peak hours could reduce their bills, and improved load management could raise the overall efficiency of electricity production if time-of-use rate schedules were adopted. However, these rates require meters which measure consumption by time of day. In the short run, the higher cost of these meters might offset any reduction in bills.

Provisions in the National Energy Act, currently before Congress, would require the wider adoption of time-of-use rates.

Considerations in Adopting Rate Structure Changes

In addition to the schedules discussed above, other rates have been suggested for non-economic reasons. Lifeline rates, which are discussed in the next section, have some cost of service rationale but are designed primarily to assist low income individuals and encourage conservation. Other rates have been proposed by environmental groups to lower consumption and thereby reduce the need for new facilities. Each of the basic rate structures has been proposed in numerous variations.

The declining block rate structure probably will be altered in the next few years. President Carter's energy proposals include changes in electricity rate structures, and the Federal Energy Administration has funded experiments with time of use electricity pricing. Several states are studying rate design and experimenting with different rate schedules.

The Governor's Special Advisory Commission recommended that electric utilities increase seasonal load management efforts and that the Kentucky Public Service Commission encourage this work. To date little has been done in this area.

Changes in the rate structure will not materially lower the price of electricity; the main purpose of the changes is to distribute costs as fairly as possible. However costs are allocated, they still must be paid by customers either directly or indirectly. Electricity prices are part of the total economic environment, and changes effect other parts of the economy. The money consumers must spend for electricity is not available to purchase other consumer goods. If industrial and commercial users are asked to subsidize residential rates, then the higher rates they pay will be added to the cost of their products or services. Therefore, it is unrealistic to believe that higher electricity costs will somehow disappear with rate reform.

Major changes in the rate structure should be made with caution, considering the needs of all customers. Households with all-electric homes, for instance, have paid fairly low rates under the present system; reliable electricity at reasonable cost has attracted some industries to the state. Any change in the rate structure will work to the advantage of some customers and to the disadvantage of others.

Changes from the present rate structure nevertheless should be considered, and experiments with alternate structures on a regional or local basis should be encouraged. Changes in rates can lead to more equitable costs to all consumers and give incentives for responsible use of the available resources.

RATE RELIEF FOR CITIZENS ON LOW OR LOW FIXED INCOMES

Basic electric service is a necessity of modern life. Residential customers may respond to rising rates by cutting back unessential use, but they cannot dispense with the service altogether. Higher electricity costs, together with rising fuel costs in general, have caused concern for the plight of Kentucky's poor, and particularly the elderly poor, who are least able to absorb these costs. During the recent severe winter some retired customers dependent on electric space heating reported electricity bills larger than their Social Security checks.

A number of methods have been suggested to lower the price of electricity to those least able to pay. Essentially these can be divided between proposals to alter the rate structure, and proposals to offer a direct subsidy administered by a government agency.

Lifeline Rates

Lifeline is a term applied to rate structures which provide a minimum amount of electricity at low cost and charge higher prices for use beyond the minimum, or lifeline amount.

Except for this provision for a minimum block at low cost, the specific structures called lifeline may vary. All residential users would be eligible under some lifeline proposals; others would apply only to elderly or low income customers.

Lifeline proponants claim that these rates will alleviate the burdens of rising energy prices on the poor and fixed-income population and insure that such people can afford electricity for essential purposes. Those who consume small amounts of electricity now pay the highest rate; these customers may actually subsidize larger residential users. It also is argued that increasing the price per kilowatt-hour for the higher levels of consumption will encourage energy conservation, even though prices for the initial block are reduced.

Lifeline rates have been under consideration for a number of years, not only for electricity but also for other utility services. The Kentucky Public Service Commission currently is studying the desirability of such rates in response to a recommendation by the Governor's Special Advisory Commission on Electrical Rates and Regulation. A bill calling for lifeline rates was introduced in the 1976 legislature, and lifeline legislation has been introduced in most states at some time. Lifeline-type rates currently are in effect in parts of California, Maine, Ohio, Pennsylvania, Georgia, and Arizona.

Except for California and Maine, the lifeline rates in effect are relatively simple. They provide lower rates for the first block of residential use. The size of this block varies from about 250 to 500 kwh. This low rate applies to all residential customers, and the lost revenue is made up by higher rates either to large residential users or to all other customers.

This simple lifeline concept is appealing because it avoids the red tape of government subsidies to eligible recipients. It serves the dual purpose of assisting the poor and encouraging conservation.

Critics of lifeline rates question the premise that low or fixed income families also are small users of electricity. They argue that these customers may actually use more electricity than families with higher incomes, since they may live in poorly insulated homes and have older, less efficient appliances. Several studies can be cited to show that there is no correlation between income and electricity use; other studies demonstrate that low-income users use substantially less. Since this information is not conclusive, efforts to help low-income people should not be based solely on implementing lifeline rates.

Maine instigated a somewhat different lifeline rate in 1975, which may be a more appropriate aid to the low-income elderly. This scheme provides a maximum of 500 kwh/mo. at a low rate to elderly, low-income residents. Applicants are certified by local outreach agencies who work with senior citizens. These rates were applied on a trial basis for one year, and legislation currently being considered would extend the program. The demonstration showed that the elderly participants used less than 250 kwh of electricity per month on the average, less than half of the average use of all residential customers.

Public Assistance Programs

Critics of lifeline rates argue that poor families should not be subsidized by other electricity customers, but rather by the whole population through tax money. They also argue that lifeline would benefit all small customers, not just the poor. High-income families with second homes would qual-

ify for lifeline rates, while a poor family in an all-electric home might pay more than before.

Several methods have been suggested for assisting the poor directly with government subsidies. One of the most popular is that of utility stamps. Utility stamps could be provided on a basis similar to food stamps and could be applied towards purchases of fuel or payment of utility bills. Such a scheme would have several advantages:

1. The amount of subsidy would be based on income, and families not on other public assistance could qualify for partial subsidy;

2. The quantity of stamps provided could be tailored to the needs of each family;

3. The subsidy would be provided directly to customers from public money. Utilities would not be asked to administer or finance a public assistance scheme; and

4. The subsidy could cover payments for all specified fuels or utilities, not just electricity.

A utility stamp program probably could be administered through existing regional offices of the Department for Human Resources. It would require additional administrative personnel. The amounts of tax moneys required would depend on the eligibility requirements and the amounts of subsidy.

A utility stamp program easily could run counter to energy conservation efforts, since it may encourage greater use of electricity. The food stamp program began mainly to promote consumption of domestic agricultural products. To discourage wasteful consumption a utility stamp program must limit the subsidy to cover only reasonable usage.

The need to establish minimum necessary quantities can be quite complex, as seen in the example of California. In 1975 the California legislature directed the Public Utilities Commission to designate minimum necessary quantities of gas and electricity, which were to be sold at a lifeline rate. It specified that these quantities take into account needs for space and water heating, lighting, cooking and food refrigeration.

The California Public Utilities Commission, after considerable study, set 16 lifeline quantities of electricity and 16 for gas. These are based on the mix of household appliances, heating needs in different climatic zones, and differences between apartment and single family homes. The Commission is continuing its study and may add additional quantities to those already specified.

CONFUSION OVER BILLS, RATES, AND UTILITY POLICIES

The Public Utilities Subcommittee held two public hearings as part of its investigation of rising electricity rates. Consumers at these hearings complained not only about rates, but about lack of information on rates and lack of uniform policies between utilities. Designing a new electric bill format

or a uniform extension policy will not bring down electricity costs. Nevertheless, these issues cause considerable popular resentment and therefore are included here.

The Monthly Electric Bill

The monthly electric bill is the main tool households have to monitor their electricity consumption. The format of the electric bill, as well as the amount of information contained, varies from company to company. Consumers complain that the bill does not tell them, in a way simple enough to understand, what they actually are paying for.

Most, but not all, bills contain the meter readings, the number of kilowatt-hours used, taxes, and fuel adjustment charges, although consumers complain that the fuel adjustment entry is hard to understand. All bills include the amount due and the date due. Apparently none include the rate schedule used to calculate the bill.

Utility companies argue that it is impossible to print the rate schedule somewhere on a customer bill. This is so because all bills are printed on the same cards. Thus, to print all applicable schedules, including service and demand charges, special rates, and other necessary information would indeed be impossible. If different formats could be used for residential customers, however, these bills could have the residential rates printed on the back and still have adequate space.

Certainly this is not a major issue. Customers always can tell how much they paid on the average by dividing the number of kilowatt-hours they used by the amount of the bill. But because the charge per kilowatt-hour depends on the number of kilowatt-hours used, this average does not tell how much they paid for the last kilowatt-hour. They may need this information to estimate the cost of running a new appliance they would like to purchase or to calculate potential savings through conservation. The customer also cannot calculate the effect of rate increases unless he happens to use exactly the same amount of electricity from one month to the next.

Customers can obtain the applicable rates by requesting them from the electric company. The fact that they must make a special effort to find out what they are being charged, however, creates the feeling that the utilities would prefer that customers not have this information.

Comparability of Rates

Resentment over the difficulty of obtaining rate schedules increases if consumers try to compare their rates with those charged by other utilities. All utilities in Kentucky charge some form of declining block rates to residential customers, something like the one shown on page 21. All similarity ends at that point. A review of the residential rate structures of 26 companies regulated by the Public Service Commission turned up 23 different schedules. Three companies used the schedule below, though specific rates differed:

First 75 kwh	___cents/kwh
Next 150 kwh	___cents/kwh
Next 275 kwh	___cents/kwh
kwh over 500	___cents/kwh

Two additional companies used the following schedule:

Customer charge:	$_____
First 500 kwh	___cents/kwh
kwh over 500	___cents/kwh

With these exceptions, no two companies used the same number and size of blocks in their residential schedules. Some schedules used as many as eight steps, others as few as two. Some companies have a separate customer charge, others charge a flat price for the first 16, 25, 30, 40, or 50 kilowatt-hours used. Some utilities offer a discount for bills paid before a certain date; others do not.

This great variety probably evolved because companies designed rates individually over the years and change them individually in rate cases before the Public Service Commission. The effect, however, is to raise comparison of electric bills to a level of difficulty exceeding that of comparing the price of 4 1/2, 6 1/4, and 13 ounce cans of tuna fish at the grocery. Again, this gives the impression that the electric companies prefer that customers not know the rates they are charged and not be able to compare them with rates charged by other companies.

Groups which routinely work with statistics on electricity rates get around this problem by calculating the cost to a consumer using 500 kwh, 1000 kwh, etc. under each rate schedule, and by then comparing these figures.

Uniform Extension Policies

The Public Service Commission has the power to regulate almost every activity of utilities under its jurisdiction. It oversees finances, rates, expenses, service standards and policies of all sorts. The Commission has promulgated regulations covering everything from deposits to meters.

Nevertheless, utilities do not always have strictly uniform policies even in areas covered by regulations. A case in point concerns policies followed in making extenions to resort developments. The Public Utilities Subcommittee received a request that extension policies of utilities regarding subdivisions, mobile homes, and resort areas be made uniform throughout the Commonwealth. Regulations already specify the rules under which extensions are to be made to permanent residences, mobile homes, and residential subdivisions. However, the developer who spoke to the subcommittee had experienced differences between the companies which had extended lines to his developments. He stated that while some companies would extend the primary lines at no cost, others required him to pay the full cost for the extension, as well as the cost of upgrading the lines for heavier use. Some refunded the cost of 1,000 feet of the extension for each new customer connected, others a set percentage of his expenses.

In response to this request, all electric companies regulated by the Public Service Commission were asked to submit their extension policies for the specific case where a developer plans to subdivide and sell lakeside or adjacent lots to individuals, and requests that electric lines be extended to the subdivision before the lots actually contain houses. The development would allow permanent, seasonal or mobile homes to be placed on the lots.

Results of the survey summarized here appear in detail in Appendix F. The 22 respondents reported a variety of policies concerning the distance lines would be extended without charge, charges for upgraded facilities, and methods of refunding costs to the developer. Ten of the respondents reported that there had been no developments of this type in their service area and that if such a development were proposed they would have to interpret the existing regulations for that particular case. A few of the stated policies appear to conflict with existing Public Service Commission regulations, but most variations result from applying these regulations in different ways to the specific case.

The Public Service Commission could add a regulation to cover the extension policies to be used for resort development by regulated electric utilities and thus ensure uniform treatment. Recently a regulation was added to cover extensions to mobile homes.

A specific regulation covering resort developments, however, may not be desirable. These developments are large enough that the developer usually can negotiate for services. They occur infrequently, and electric companies can judge the merits of each individually. The companies already are restricted by the Public Service Commission regulations which apply to all extensions of electric service.

It is impossible to write regulations which specify exactly what to do in every possible situation; this is a problem encountered in every field of law. Existing regulations provide basic ground rules and give exact requirements for the most common cases. If there is sufficient confusion over resort extension policies, then a regulation probably is in order. But in general, utilities probably should be allowed to evaluate unusual cases by applying the general rules.

INDUSTRY REGULATION

The issues of site selection and new capacity, fuel purchases and alternate rate structures require responsible solutions. Proposed legislation should consider the impact of change on various segments of society. Most of these problems do not have a single, simple solution. Some legislation passed in other states has had to be repealed or amended as the implications became more apparent.

The electricity industry is heavily regulated, and it can be argued that excessive and conflicting regulation has added to the burden of higher rates. As an example, the Kentucky Attorney General's Office complied a list of agencies issuing permits needed prior to the construction of an electric utility generating plant. The list included 41 federal agencies, 14 state agencies; 6 local agencies, and 21 miscellaneous agencies. While not all of these agen-

cies are involved in each plant approval, a large amount of duplication and red tape seems to exist.

During the investigation for this study, utility representatives repeatedly expressed frustration with the regulations under which they operate. They do not argue against the need for regulation as such, but with conflicting requirements by different agencies, with jurisdictional disputes which catch them in the middle, and with laws or regulations passed without sufficient study. The dispute between the Public Service Commission and the Tennessee Valley Authority is an example. The Commission refused to approve rates set by Tennessee Valley Authority for the six cooperatives it serves in Kentucky. This dispute apparently has been settled, but at one time the Tennessee Valley Authority threatened to quit supplying wholesale power to these cooperatives unless they charged the recommended retail rates.

An amendment to the 1970 Clean Air Act which currently is before Congress would make some changes in the methods utilities must use to limit stack emissions. Utility companies are extremely sensitive to any changes in these requirements because of the large sums of money involved if equipment must be added or altered. Environmental interests argue that current standards are quite lax and that utility companies are delaying as long as possible in meeting them.

The electric industry is highly capital-intensive, and must plan new capacity well in advance of the time it will be needed. Lucien E. Smartt in Public Utilities Fortnightly claims that uncertainty as to what will be required by government regulations in six months or a year is the reason most often cited for deferment or inaction by utilities on large energy projects.

Additional utility legislation should only be enacted after careful consideration. Utilities must be regulated, but they also must have enough freedom to make necessary operating and planning decisions. Changes in plant design or location requirements should take into account the long lead time required to plan new facilities. Changes in rate structures should first be tried experimentally to see whether the results are as expected.

CHAPTER 4

SYNOPSIS OF MAJOR ISSUES CONSIDERED

BY THE PUBLIC SERVICE COMMISSION, 1976-1977

The Public Service Commission determines utility revenue requirements, fixes rates, authorizes new construction, controls utility services, and supervises all financial transactions of the utilities under its jurisdiction. Therefore, the policies of the Public Service Commission determine, in large part, which actions will be taken to resolve the problems discussed earlier in this study.

The Public Service Commission acts as a quasi-judicial body, deciding the merits of each case brought before it rather than formulating general policy statements. The attitudes of Commission members on issues of rate design, management audits, or new construction can best be seen by analyzing decisions in recent cases involving these issues.

This chapter summarizes some of the major electric utility issues considered by the Commission during the past year and reviews decisions which indicate Commission policy on these issues.

Management Audits

Management audits have been proposed as a means of obtaining alternative, independent information to evaluate the efficiency of a utility company. Such audits have been used by state regulatory agencies in Arizona, Connecticut, Illinois, Indiana, Iowa, Kansas, Maryland, Michigan, Missouri, New York, North Carolina, Oregon, Pennsylvania, and Vermont. In at least three states - North Carolina, New York, and Connecticut - periodic management audits are required for every state utility. Management audits are used to demonstrate whether a utility is being managed satisfactorily, and to identify areas for improvement. National experience indicates potential cost savings of between 2% and 6.5% by implementing audit recommendations.

The Kentucky Public Service Commission required a management audit for the first time in Big Rivers Electrical Corporation, Case No. 6499. A similar audit proposal was denied for Louisville Gas and Electric, in Case No. 6601, and again in Case No. 6723. The Commission apparently feels that a management audit is appropriate only in specific cases and would not be cost effective for all utilities.

Operating Expenses

The review of cost of service expenses is an important part of most rate cases, as was true in the cases of Kentucky Power Company, Case No. 6542, and Big Rivers Electrical Corporation, Case No. 6499. The Public Service Commission scrutinizes all proposed wage and salary increases, increases in annual depreciation charges, and increases in the cost of materials. Expense items usually do not entail large dollar amounts compared to fuel and rate base items, but have become controversial issues in rate cases.

The Commission consistently ruled during the past year that charitable donations are not operating expenses for the purpose of ratemaking. An example is Union Light, Heat and Power Company, Case No. 6566. The Commission has heard arguments that expenses for advertising also should be excluded when this advertising primarily benefits utility stockholders or the utility itself. Critics would not exclude advertising primarily designed to promote conservation or some other public good. To date, the Public Service Commission has allowed the inclusion of all advertising expenses for ratemaking purposes in electric cases. In a related case, however, about three-quarters of South Central Bell's advertising budget was disallowed in Case No. 6659.

Fuel Charges

The Public Service Commission has authorized the use of fuel adjustment clauses by all of the electric utilities. These clauses are monitored by the Commission staff and are reviewed as part of utility rate cases.

During the past year the Commission authorized fuel surcharges in addition to the normal fuel charges in two controversial cases, Big Rivers Electrical Corporation, Case No. 6751; and Kentucky Utilities Company, Case No. 6643.

Big Rivers Electrical Corporation applied in February of 1977 for authority to impose an energy surcharge to pay Peabody Coal Company $10 million to settle claims arising out of the development and closing of the Panama Coal Mine in Webster and Henderson Counties. This settlement was to terminate the contract between Big Rivers and Peabody after Big Rivers had received Panama Coal allegedly unsuitable for the utility's use. The Public Service Commission authorized payment of a $.00032 per kilowatt surcharge for not more than 10 years by order dated June 20, 1977.

In September 1976, Kentucky Utilities Company filed for a modification in its fuel clause, Case No. 6643. The company essentially proposed to change from a quarterly to a monthly base, which would have allowed it to retrieve fuel costs more quickly.

Controversy arose in the case because Kentucky Utilities proposed to apply a fuel surcharge to recover two months of fuel expense it claimed would be lost through modification of the clause. The company claimed that its clause was designed to reclaim the actual expenses incurred earlier, so expenses for two months would be lost if the base were changed. Intervenors from the Attorney General's office argued that monies would not be lost as long as fuel costs continue on their present upward trend and as long as the most recent data available to the company is utilized in its computations. The Commission authorized a surcharge in the total amount of $4,779,064. This order was upheld on appeal.

Rate Base Items

The revenue requirements of a utility are calculated using the following formula:

Utility Revenue Requirements = Expenses + Rate of Return x Rate Base.

In almost every electric utility case, the rate of return or rate base issues involve many more dollars than expense issues. This particularly is true since the fuel price increases, the most volatile expense items, are handled separately through the fuel adjustment clause mechanism. In simple terms, the rate base comprises the capital investment of the utility. The utility is allowed a percentage of this investment as rate of return, or profit.

Rate base is a combination of the following accounts:

1. Total plant investment minus accumulated depreciation;

2. Construction work in progress;

3. Working capital requirements;

4. Materials and supplies;

5. Land held for future use; and

6. Prepayments.

MINUS

7. Customer deposits;

8. Customer advances for construction; and

9. Contribution for debt service.

Of these accounts, construction work in progress (CWIP), working capital requirements, and prepayments generated the most debate before the Public Service Commission during the last year.

Construction work in progress is an accounting technique through which a utility is allowed rates and revenue on plants not yet in service. It is argued that the inclusion of construction work in progress in the rate base shifts the risk of new construction from utility investors or the utility itself onto the rate payers. The risks of construction are created by the uncertain cost of the plant, the uncertain period of construction, and the uncertain need for the plant upon completion. The inclusion of construction work in progress also allows a rate of return upon a given plant without the offsetting revenues from the sale of electricity.

Fifteen states - Arizona, California, Connecticut, Hawaii, Idaho, Iowa, Kansas, Montana, Nevada, North Carolina, North Dakota, Rhode Island, West Virginia, Wisconsin, and Wyoming - prohibit the inclusion of any construction work in progress into the rate base until the plant in question comes on line and becomes used or useful. Twelve states - Alaska, Arkansas, Georgia, Indiana, Louisiana, Massachusetts, Mississippi, New Hampshire, New Mexico, Oklahoma, Pennsylvania, and Vermont - allow construction work in progress to be included in rate base but limit any inclusion to the last months of construction to insure the proper incentive to finish construction on time. Nine states - Alabama, Colorado, Maine, Michigan, Minnesota, Oregon, South Carolina, Virginia, and Washington - allow construction work in progress in the rate base, but offset the effect of the inclusion by a simultaneous

accounting procedure known as allowance for funds used during construction. This allowance for funds used during construction procedure reduces the advance payments caused by the inclusion of construction work in progress and delays payment, at least in part, until consumers benefit from the new facility. Five states - Delaware, Nebraska, South Dakota, Tennessee, and Texas - have not yet defined their regulatory policy. Only one state - Maryland - allows construction work in progress to be included without any offset. The remaining states, including Kentucky, employ some variation of the above approaches to construction work in progress.

For the majority of state utilities, Kentucky employs the construction work in progress inclusion offset by an allowance for funds used during construction. An exception to this policy has been made in the case of Louisville Gas and Electric Company. Louisville Gas and Electric is allowed to include 100% of construction work in progress in the rate base without an offset for funds used during construction. This exception was challenged in Louisville Gas and Electric, Case No. 6723, but was upheld by the Commission.

The treatment of the working capital accounts in the rate base also has fired controversy during the past year. Working capital is commonly defined as the amount of capital provided by investors over and above investment in plant and intangibles, designed to cover any gap between cash expenditures and collection of revenue. To be properly included in rate base, the working capital funds must be provided by investors; otherwise a return on those funds would be inappropriate. The Commission allows electric utilities to include in cash working capital a sum equal to one-eighth of the annual operating expenses of the company less depreciation. This one-eighth multiplier provides funds to cover a 45-day gap between expenses and revenue collection. Many consumer groups argue that this 45-day rule of thumb should be replaced by required lead-lag studies which would provide the actual, rather than presumed, working capital needs of a given utility. The Public Service Commission position is not necessarily anti-consumer. Some utilities would receive more if lead-lag studies were substituted for the one-eighth multiplier.

A third rate base account which has drawn attention in the last year is the prepayments account. In Kentucky, as in many states, a utility receives a rate of return upon any monies prepaid on utility expenses. In other words, the utility not only is reimbursed for this expense, it also receives a margin of profit on the payment. This is not objectionable when the prepayment results in some saving to the utility, but objections have been raised where no net savings to the utility can be shown. Examples of this are the prepayments by Columbia Gas of Kentucky to its sister subsidiary, Columbia Gas Transmission Company. To this date, the Public Service Commission has considered arguments against some prepayments but has allowed the inclusion of all prepayments in the rate base.

Rate Design

The Public Service Commission considered the question of alternate rate design for the first time in Louisville Gas and Electric, Case No. 6723, June 1977, but did not require that the company take any action at this time. Consumer groups argued in that case that the utility should be required to institute time of day and seasonal pricing differentials. Although this proposal was rejected, the Commission has required in several cases that utilities

undertake detailed cost of service studies and approved such a study for Louisville Gas and Electric Company in the above case. Such studies eventually may be used to justify changes in the rate structures.

The broad question of rate design also was considered by the Commission in a series of rate cases involving a group of rural electric cooperative companies (RECC) who purchase power wholesale from the Tennessee Valley Authority (TVA). The cooperatives involved are Jellico RECC, Hickman-Fulton RECC, West Kentucky RECC, Tri-County RECC, Warren County RECC, and Pennyrile RECC. The TVA sets retail rates to be charged by its distributors, although rates also must be authorized by the Public Service Commission. In the fall of 1976, TVA adjusted its wholesale and retail rate structures and adopted 12 retail rate steps to approximate the revenue needs of its various distributors. The Public Service Commission did not feel that these 12 steps were sufficiently flexible to match the distributor revenue requirements exactly. Although the Commission approved the general TVA changes, it did not approve the inflexible rate steps. The question of whether or not the Public Service Commission may vary the rate classifications set by the Tennessee Valley Authority was appealed in the Franklin Circuit Court in the case of Jellico Electric System v. Public Service Commission and the Attorney General of Kentucky, Civil Action No. 87832. Recently an agreement was reached in this controversy whereby the Public Service Commission will examine the rate level recommended by TVA for each utility, and will confer with TVA to change the assigned level to another of the twelve retail steps if it feels this is justified by the company revenue needs. Rate increases requested by five of the cooperatives in May were approved July 5, 1977.

The Construction of New Generating Capacity

KRS 278.020 provides in part that no utility shall begin the construction of any plant, equipment, property, or facility before such utility acquires a certificate of Public Necessity and Convenience from the Public Service Commission. These construction certificate cases have an important impact on the ratemaking process. Once construction is approved, it is a foregone conclusion that the investment associated with the new plant will be introduced into the rate base at a future time.

The Public Service Commission acted on two major certificate cases during the past year. In case No. 6719, Big Rivers Electrical Corporation, sought Commission approval to borrow money for an $89 million cost overrun in the construction of its Reed No. 1 and No. 2 plants. Construction of these plants had been authorized previously. The Commission approved this application in April 1977.

The second electric certificate case was the application of East Kentucky Power Cooperative, Inc., Case No. 6604, to construct a $380 million, 500 megawatt Spurlock No. 2 power plant on the Ohio River near Maysville, Kentucky. Intervenors in this case questioned the forecasting techniques used by the company to justify the need for a plant, and the effect of increased rates due to construction on the demand for power. They also argued that east Kentucky could purchase power from neighboring utilities rather than construct a new plant. East Kentucky argued that rapid growth of demand made additional capacity essential. The Public Service Commission granted the certificate on November 19, 1976, and on December 22, 1976, denied the intervenor's Petition

for Rehearing. The case is now on appeal to the Franklin Circuit Court, Civil Action No. 87663, and is the subject of a federal suit in the Eastern District of Kentucky on environmental issues.

Siting of New Plants in the Ohio River Valley

The siting of new plants is a question closely related to the need for new generating capacity. During recent years, environmental groups have called for a moratorium on future power plant construction in the Ohio River Valley. They contend that construction should be halted at least until a study of the Ohio River Basin authorized by Congress is completed. Twenty-five power plants have already been constructed along the Ohio, many of which are clustered around the towns of Maysville, Evansville, Madison, Louisville, and Cincinnati.

The Public Service Commission has not endorsed a moratorium on construction along the Ohio, as evidenced by the construction permit for east Kentucky's Spurlock plant. However, Governor Carroll has initiated several courses of action to deal with sitings of new power plants. He has created a special Site Review Committee to review potential industrial sites along the Ohio River and has formed a Policy Advisory Committee on Energy to coordinate state agencies involved in energy related fields. He also has contacted the governors of neighboring states and the chairman of the Tennessee Valley Authority, asking for their cooperation in developing a regional power plan.

CHAPTER 5

CONCLUSION

Rapid increases in the cost of electricity have focused public attention on the electric industry and on the structure of its rates. Problems which were mainly academic while rates were low now are controversial public issues. This paper has considered several of the important current issues which are likely to confront the General Assembly during the 1978 Session.

The Kentucky Public Service Commission regulates the activities of most electric companies in the Commonwealth, as authorized in KRS Chapter 278. Critics argue that the Commission has not taken the lead in industry planning, that it should require utilities to test alternate rate structures, and that it should require more thorough documentation in rate and construction cases. As a quasi-judicial body, the Public Service Commission tends to evolve policies on the basis of specific cases and to adopt changes gradually.

The General Assembly can direct the Public Service Commission to look into issues which have been ignored in the past or to adopt specific policies. Some changes lie outside the present jurisdiction of the Commission. Direct legislative action would be required to remove the sales tax from electricity bills, establish lifeline rates or set up assistance programs for low income electricity consumers.

Additional utility legislation should be considered carefully. Issues surrounding the industry and its rates are complex and impact on all segments of the economy. Rate structure changes will benefit some customers, but will impose higher costs on others. Too much construction raises costs unnecessarily, but too little could cause future blackouts. Utilities should not earn excessive profits, but they must remain sufficiently sound to attract needed capital. Proposed legislation should consider the impact of change on various groups to assure that the results are those which were intended.

The problems discussed in this study do not lend themselves to simple, one-time solutions. Rates almost certainly will continue to rise in the near future, regardless of actions taken at the state level. Yet responsible action is needed to help those least able to pay the higher rates, to ensure sufficient but not excessive generating capacity for the future, to distribute the higher costs fairly among customers, and to keep increases as low as possible through efficient management and careful regulation. Kentuckians cannot avoid higher electricity costs, but by pursuing and finding solutions to the problems above, they can avoid the most serious effects of those higher costs.

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APPENDIXES

APPENDIX A

IN SENATE

REGULAR SESSION 1976

SENATE RESOLUTION NO. 61

TUESDAY, MARCH 9, 1976

Senator Pat McCuiston introduced the following resolution which was ordered to be printed.

A RESOLUTION directing a study of electrical utility rates in the Commonwealth of Kentucky.

WHEREAS, there has been a dramatic increase in electrical utility rates; and

WHEREAS, the combined effects of rising energy demand, fuel shortages, and inflation have created crippling hardships for the public with regard to the availability and utilization of energy supplies; and

WHEREAS, in this period of rapid change in the economic climate, it is difficult for the members of the General Assembly to exercise responsible judgment unless adequately informed in such vital areas as the regulation of electrical utility rates.

NOW, THEREFORE,

Be it resolved by the Senate [illegible] General Assembly of the Commonwealth of Kentucky:

Section 1. (1) That the Interim Committee on Public Utilities and Transportation undertake a comprehensive study to identify and evaluate reasons for rising electrical utility rates.

(2) That the Interim Committee on Public Utilities and Transportation study different methods of rate structuring.

(3) That the Interim Committee on Public Utilities and Transportation study the current practices of the Public Service Commission and the public utility companies as they pertain to the fuel adjustment charge.

Section 2. The Interim Committee on Public Utilities and Transportation shall report its findings and recommendations to the Legislative Research Commission on or before August 1, 1977.

Section 3. Staff services to be utilized in completing this study are estimated to cost $15,000. These staff services shall be provided from the regular Commission budget and are subject to the limitations and other research responsibilities of the Commission.

APPENDIX B

SPECIAL ADVISORY COMMISSION

ELECTRICAL UTILITY RATES AND REGULATION

CONCLUSIONS AND RECOMMENDATIONS

December 2, 1975

Conclusion #1: MEETING FUTURE NEEDS

It appears that the generating facilities now planned by the utilities serving Kentucky will be adequate to meet relatively high projections of growth in demand during the next decade. The emergence of power pools which cross the state's boundaries, however, makes assessment of future plans of the individual utilities difficult. There is not at this time adequate overview by either the Public Service Commission or the Federal Power Commission of the joint planning being done under these pooling arrangements.

Failure to meet demand in the future would have serious repercussions on the economic health of the state and the quality of life of its citizens. On the other hand, over-construction should be avoided because it is a luxury the consumers cannot afford.

It is apparent that existing generation capacity can be better utilized. This is due to several factors but the most prominent of these is that uneven demand or usage patterns require the construction of capacities which are fully used only short periods of time during the year. It is clear that greater priority must be given to the improvement of system load factors so that more efficient use of expensive existing and future generating capacity can be assured.

Recommendation:

1. The responsibility of the Public Service Commission for administering planning requirements for future plant additions in the utility industry should be developed and closely monitored to support planning activities by the individual utility so that the industry would neither be over- nor under-constructed.

The Public Service Commission should also establish procedures for coordinating planning with neighboring states to assure adequate overview of interstate power pool planning.

Dissenting on Conclusion and Recommendation (Milner)

Conclusion #2: FINANCING FUTURE NEEDS

The ability of the electrical industry (both public and investor-owned) to provide adequate service during the next decade will ultimately depend upon its ability to obtain the substantial amounts of capital necessary for plant expansion, particularly generating capacity. This means electric utilities must continue to be financially sound and their returns on investment must be adequate to attract new investment capital. It is essential that an adequate interest coverage be maintained to establish credit worthiness. While suffering from many of the financial problems of the utility industry nationally, especially in terms of raising new capital, utilities in Kentucky have managed to keep up a good standing relative to national experience. The economic and service benefits of this advantage to Kentucky consumers should not be allowed to be lost.

Maintenance of the long-term fiscal soundness and credit worthiness of the utilities in Kentucky is required by law, and must remain an important goal of Public Service Commission regulatory policy. Once investor confidence in a utility's bonds has been damaged, it is extremely difficult and costly to restore that confidence.

Recommendations:

1. Expanded efforts should be made by the Public Service Commission to analyze and monitor the long-term financing needs of the industry to assure that these needs are safeguarded by its decisions.

2. In view of the large amounts of money which will be required to finance new facilities planned for Kentucky during the next ten years, it is essential that the Public Service Commission establish as one of its goals the formulation and implementation of policies to encourage the individual utilities to make every effort to evaluate alternative methods of achieving greater efficiency in the utilization of existing and future constructed generating capacity.

Conclusion #3: COST OF SERVICE AND THE RATE STRUCTURE

In determining fair and reasonable rates, the Public Service Commission sets total allowable operating revenues so as to produce a fair return. By law, rates may not unreasonably advantage or disadvantage any customer or class of customers. There has been almost universal agreement among both critics and defenders of the current rate-making process that electric pricing should be based predominantly upon the actual costs incurred in providing electric service. However, within classes, cost averaging is universally practiced and includes some intra-class deviation. Such deviation has been traditionally regarded as reasonable.

There has been no significant criticism of the current customer classifications--residential, commercial, industrial, institutional and wholesale.

The cost-of-service information used in the current rate-making process of the Public Service Commission relates almost entirely to satisfying approved revenue requirements. Little attention is given to how the rate structure allocates costs among customers and studies verifying such cost allocations are often out of date or incomplete. While the Public Service Commission devotes considerable attention to revenue required from all customers it does not subject the rate structure to close scrutiny nor does it prescribe standards to assure that it tracks costs.

If consumers are to be assured that prices do, in fact, reflect the costs of service, then sufficient information on costs must be available in rate proceedings. Resolving the situation is difficult. Cost of service studies are complex and, in the absence of uniform procedures, difficult to evaluate and highly judgmental.

Testimony before the Commission suggests that innovative approaches to cost of service analysis such as long range incremental costing might lead to a substantial flattening of the existing rate structure.

Basic standards are needed to provide a basis for allocating costs among the various classes of consumers and in relation to electric usuage patterns. This is not now the case in Kentucky.

The current set of tariffs is divergent among utilities and tends to 1) inhibit public understanding and acceptance, 2) discourage comparison of utilities' performance and 3) contribute to the complexity and inefficiency of the regulatory process. Complete cost of service studies would help assure each customer that the charges are equitably fixed in relation to other customers.

Recommendation:

1. Cost of service should be the predominant element in the establishment of rates.

2. The Public Service Commission should conduct comprehensive proceedings to establish uniform standards for the conduct of cost of service studies including treatment of innovative cost of service issues such as long-range incremental costing and similar modern cost of service techniques. The Public Service Commission should periodically review and adjust the standards and supporting cost studies.

3. The Public Service Commission should order each utility to conduct such cost of service studies according to established uniform standards.

4. Based upon the results of the standardized cost of service studies, the Public Service Commission should conduct proceedings of a generic nature in order to prescribe model tariff structures to be applied to each utility. While these rates should be based predominantly on cost of service, some deviations among tariff schedules or usage levels may be desirable (e.g., to promote conservation, aid low and fixed income groups, improve load factors, promote economic development, improve public acceptance, etc.). Whenever a

tariff involving some deviation from cost of service is approved, its rationale should be recorded and its cost and incidence assessed. To whatever extent tariffs are redesigned, changes should be made only after careful deliberation and in such a manner to maintain earnings stability and minimize public misunderstanding. Full implementation should be completed by December 31, 1981.

Disenting on Recommendation #4 only (Kesler, Lake, Morgan, Timmons)

Conclusion #4: FAIR RETURN

Insofar as the electric utility industry is highly capital-intensive, fair return is a most critical issue. The traditional concepts of fair return have been eroded by the effects of continued inflation. The most important measure of fairness for the customers in determining return to the utility is an amount which enables the utility to raise capital to meet demand for electricity.

Kentucky's utilities are in relatively sound financial condition, however, recent stock performances of some investor-owned companies (sales of new and transfers of outstanding shares of common stock at a price below book value) would suggest some problems.

Once the Public Service Commission authorizes a rate expected to provide a fair return, the utility's revenues are locked in, except for any automatic adjustment clause, and the present level of the efficiency and effectiveness of utility's management is spurred to reduce costs and increase profits until the next determination of return by the Public Service Commission. Regulators, utilities and intervenors have become increasingly interested in the evaluation of management efficiency. Currently, such evaluations have no role in the regulatory process in Kentucky.

Recommendations:

1. The Public Service Commission should continue to focus special attention on fair return with emphasis on insuring financial soundness for the utility and fairness for its customers.

2. The Public Service Commission should develop methods and means for evaluating the management efficiency of the utilities. Results of these management efficiency studies should be used as a factor in determining fair return.

Conclusion #5: FUEL ADJUSTMENT

The fuel adjustment clause is a fair and necessary instrument for reflecting both increases and decreases in fuel costs by the utility outside of normal rate-making procedures, if properly designed to prevent abuses, continuously monitored, and consistently applied throughout the economic cycle.

Three points need to be emphasized relative to public understanding of the fuel adjustment clause. 1) The fuel adjustment charge to the consumer is

Computed as a millage charge per kilowatt hour and is not a percentage surcharge on electric bills. 2) The fuel adjustment reflects more than the actual cost of coal (or other fuel): it also reflects the efficiency of the generating equipment and the heat producing qualities of the fuel burned. 3) The fuel adjustment decreases when fuel costs decrease.

The fuel adjustment concept has been used by utilities for several years, but following the rapid increases in fuel costs during the past two years, it has become a subject of public concern. In this light the Special Advisory Commission employed Ernst & Ernst, a national accounting firm, to carry out a detailed examination of its use in Kentucky.

Each utility uses its own fuel adjustment clause. Only those of the regulated utilities are approved by the Public Service Commission. The Ernst & Ernst evaluation indicated that the costs being claimed under the fuel adjustment clauses in Kentucky are, by and large, justified. However, several clauses tended to over-recover during the test period; in a few cases revenues were collected which did not conform to the published clauses, and instances were found of clauses being applied inconsistently. The Ernst & Ernst study showed considerable variation in prices paid for fuel and in the purchasing practices of the utilities examined.

Recommendations:

1. The fuel adjustment concept should be retained.

2. The Public Service Commission should proceed to design and implement a uniform fuel adjustment procedure which includes, but is not limited to, the following principles:

a. insure equitability for both consumers and utilities;
b. facilitate the monitoring of utilities' performance in the computational and accounting as well as fuel procurement areas;
c. be precise and specific in its language;
d. be reviewed prior to approval and regularly subsequent to implementation, approved, publicized, and rigorously monitored by the Public Service Commission;
e. provide for a rolling reconciliation-correcting any errors during a period in the succeeding period;
f. minimize the recovery lag; and
g. utilize costs per kilowatt hour basis exclusively;
h. utilize a zero, or as near zero as practical, fuel base; to be implemented no later than December 31, 1978.

3. The procedures used in transition to a uniform fuel adjustment should work neither to the benefit nor to the detriment of any utility.

4. The Public Service Commission should concern itself with the fuel purchasing practices of utilities.

Dissenting on Recommendation #1 only: (Hill)

Dissenting on Recommendation #2 item "h" only: (Milner)

Conclusion #6: TAXES

State and local taxes as an average add about 10% to the Kentucky customer's electric bill. Data on the comparable tax burden in other states are not published, but reliable information from California indicates it is more than twice as great as in Kentucky. The 5% state sales and use tax accounts for half of the Kentucky burden. This and the 3% school tax levied in 57 counties are the only taxes that are identified on the customer's bill. Other taxes levied on the utility reach the Kentucky customer through rates.

The Department of Revenue estimates the 5% state tax on electricity yielded $18.4 million in 1972 and $23.8 million in 1974. County data are not readily available.

Repeal of the tax on electricity has been advocated publicly; however, the state legislature (as an attempt to establish a broad based tax policy) has provided for a level of taxes on the user of electricity and we do not find fault with the present level.

Recommendation:

1. The levying of additional or new taxes on utilities or consumers of electricity should be avoided.

Dissenting on Conclusion and Recommendation: (Coleman, Graves, Hancock, Hill, Pettit, Vandeventer, Reeves)

Conclusion #7: FEDERAL INCOME TAXATION

Federal income tax is a significant cost item for consumers served by investor-owned utilities. The tax on the return allowed by the Public Service Commission is totally passed on to the users and is not borne by the utility itself. Furthermore, significant funds are collected from users for Federal income tax, a large part of which is not currently paid to the Federal Government due to accelerated depreciation and investment tax credit. This is not to say that the utilities in Kentucky are remiss for taking advantage of this tax loophole; given current Federal law, they would be negligent if they did not. However, the utility bills of consumers served by investor-owned utilities could be substantially decreased if Federal income tax were removed from net operating income of utilities up to the rate of return found appropriate by the various regulatory agencies.

Recommendation:

1. That Kentucky's U.S. Senators and Representatives be asked to consider the proposed legislation exempting utility operating income up to the level allowed by the relevant regulatory body from Federal income tax and if

deemed beneficial to Kentucky electric consumers, that such legislation be supported.

Dissenting on Conclusion and Recommendation: (Anderson, Milner, Rodes)

Conclusion #8: LOAD MANAGEMENT

Efficient use of generating capacity is one of the most difficult issues facing utilities in Kentucky and elsewhere. Seasonal and, to a lesser degree, daily patterns of consumer usage of electricity require generating capacity that is unused much of the time. The degree to which peak demands can be kept in closer relationship to overall average demand affects both immediate per unit production costs and the amount of new capacity required to meet future demand. Both of these factors significantly affect the price of electricity to the consumer.

The load management efforts of utilities in Kentucky have been primarily concentrated on offering price incentives to large industrial and wholesale customers to either purchase "off peak" power or allow power to be interrupted at peak periods. Despite these efforts load factors have continued to deteriorate, particularly due to space conditioning demands.

Substantial improvements in load management would have a favorable impact on the price of electricity to consumers in Kentucky. Experiments with a wide-variety of pricing devices aimed at improving load factors are being carried out throughout the country, many of which are sponsored by the Federal Energy Administration. In various ways, these experiments are seeking to influence the demand patterns of consumers through both pricing penalties and incentives. Utilities in Kentucky are not participating in any of these experiments.

Recommendations:

1. *The Public Service Commission should establish a formal policy for encouraging and supporting the utilities in expanded seasonal load management efforts.*

2. *The Public Service Commission and the utilities should study and experiment with more encompassing load management techniques.*

3. *Federal financial assistance for laad management experimentation should be sought.*

Conclusion #9: ELECTRICITY PRICES AND LOW AND FIXED INCOME CONSUMERS

While recent increases in electricity prices have clearly had a severe impact on low and fixed income consumers, electricity has been only one of several necessities whose increased prices have adversely affected this group. Our findings indicate that in Kentucky electricity prices have risen comparably with the prices of other necessities.

In some cases, without relief, individuals and families may be deprived of minimum necessary levels of electric service. However, as in the case of food and housing, any relief should be directed to those who are specifically in need.

Some have proposed lifeline rates, namely that utility rate structures should be altered to provide substantially lower rates at the lowest usage blocks as a means of providing relief to this group. It is the conclusion of this Commission that such alterations in the rate structure will not significantly benefit many of those who have been most severely affected by rising prices. Evidence from the Commission's public hearings indicates that the electric bills of the elderly are substantially higher than those of the average residential customer; indicating relatively high levels of electricity usage. These users would not benefit from reductions in lower block rates for low usage customers. To properly help low and fixed income groups meet their electric bills, current cost of service studies are highly desirable, but these may not be available for years. In the meantime, some action should be taken.

Recommendation:

1. The Governor or his designee should forthwith carry out specific studies of the impacts of electricity prices on low and fixed income consumers, and develop means other than through the rate structure of assuring that minimum necessary levels of electric service are available to all citizens of the Commonwealth.

Dissenting on Conclusion and Recommendation: (Coleman, Graves, Hill, Madison, Vandeventer, Reeves)

Conclusion #10: LONG RANGE PLANNING

In view of the need for increased coordination and cooperation between intra-state and inter-state electric utility companies, the need for long-range planning is apparent.

The Public Service Commission currently views its role as being primarily quasi-judicial. This causes the Commission to respond reactively to situations primarily brought before it by the electric utility industry and does not contribute to the development of long-range plans.

The general trend, nationwide, is toward a greater planning role for the regulatory commissions.

Recommendation:

1. The Public Service Commission should give high priority to formulating long-range plans for the electrical industry, giving due consideration to the concerns of consumers, the electrical industry, national energy policy and State energy, economic development and environmental agencies, among others. These plans to be developed in a manner designed to encourage public and business contributions.

Conclusion #11: TIMELINESS OF RATE PROCEEDINGS

The time required by the rate-making process in Kentucky is a problem to the utilities in obtaining adequate revenues during periods of rapid inflation, and in maintaining adequate cash flow for current operations. These problems are contributing to the recent difficulties of the utilities in obtaining capital for new developments. The adversary proceedings of the Public Service Commission tend to produce voluminous records that take much time to transcribe and review. Such proceedings could be simplified by greater use of administrative law procedures, including pre-filed testimony, informal hearings, stipulations, and the use of hearing examiners.

Recommendation:

1. The Public Service Commission should expedite its procedures and deliberations through utilization of administrative law procedures.

Conclusion #12: CONSUMER REPRESENTATION IN PUBLIC SERVICE COMMISSION PROCEEDINGS

A strong consumer advocate is essential to assure that consumer interest are represented throughout the regulatory process. The current location of this function in the Division of Consumer Protection, of the Attorney General's Office is appropriate. The current staff serving as utilities consumer intervenor has done a commendable job within the limits of available resources and legal constraints.

This responsibility requires an expansion of the status, resources, and statutory base. The current policy of equally representing all residential consumer classes is sound.

This function requires legal, accounting, engineering and rate analysis capability. Salaries should be adjusted to attract and retain the most qualified personnel with due regard to the special qualifications. Further financial support for expert technical assistance should be included in the Division's regular budget.

Recommendations:

1. The consumer advocate function under the Attorney General should be strengthened. The utility consumer intervenor should be expanded through staff and budget resources, to monitor all cases and participate in those with merit involving the interest of Kentucky consumers before Federal agencies, other state and regional agencies. The utilities consumer intervenor section should remain within the Consumer Protection Division.

2. In addition to the provisions of existing statute (KRS 367.160) the statutes should be amended to provide the utilities consumer intervenor with formal access to material evidence and information of the Public Service Commission.

Conclusion #13: PUBLIC NOTIFICATION OF TARIFF FILINGS

Three weeks prior notice of the rate hearing in the legal section of the newspapers is inadequate. In fact, there is no statutory requirement that public notice be given at all. Currently, all hearings take place in Frankfort, making them inaccessible to many. The utilities are not required to directly notify customers of proposed rate changes.

Recommendation:

1. The Public Service Commission should more adequately inform the public about pending rate change applications. Electric utilities should be required to directly, or through newspaper advertisement equal to one-half page, notify their customers of their intention to seek rate increases and to inform customers as to the probable impacts of these changes. Appropriate requirements, more effective than now exist, should be incorporated in the Kentucky Statutes. In addition, the hearing process should utilize the existing statutory provisions for appropriate localized public hearings.

Conclusion #14: APPEAL FROM RULINGS OF THE PUBLIC SERVICE COMMISSION

The statute requiring that appeals from Public Service Commission rulings be taken on the record to the Circuit Court is hard to rationalize. In many states, appeals from regulatory agencies are taken directly to an appellate court. Until the recent ratification of the Constitutional Amendment (1974 Senate Bill 183 Acts #-4) mandating an intermediate 14 man Court of Appeals, Kentucky has had only a three level court system.

Recommendation:

1. Statutes should be amended to provide that appeals from orders of the Public Service Commission be taken directly to the appropriate appellate court upon the record made before the Public Service Commission.

Conclusion #15: COMMISSION MEMBERSHIP

State Public Service Commission members across the country are moving toward full-time status--only six states now have part-time members. Needed emphasis on the Commission's policy-making role requires active full-time Commission members. Inappropriate emphasis has been placed on legal qualifications for Commission membership. A good argument can be made for Commissioners not serving for a long period of time. Three full-time members may be sufficient and there may be as much need for engineers, accountants, economists, business representatives or homemakers on the Commission as there is for attorneys.

Recommendations:

1. Modify the structure of the Public Service Commission by reducing the number of Commissioners to three, full-time members serving for staggered four-year terms. No member should be appointed to serve more than two consecutive terms.

2. *Not all members of the Public Service Commission should be attorneys.*

3. *Salaries of full-time Commissioners should be comparable to those of circuit court judges.*

Dissenting on Conclusion only: (Rodes)

Dissenting on #1 only: (Kesler, Morgan, Rodes)

Dissenting on Conclusion and all three recommendations: (Milner, Timmons)

Abstaining on #2 only: (Vandeventer)

Conclusion #16: INTERNAL ORGANIZATION OF THE PUBLIC SERVICE COMMISSION

The internal organization and professional staff resources of the Public Service Commission are inadequate to carry out an expanded regulatory program. The day-to-day operations of the Public Service Commission lack central direction and coordination. Each of the four division directors report directly to the Commission. This severely limits overall policy direction, effective program implementation, and does not adequately reflect the scope of either existing or proposed Public Service Commission responsibility.

Particular weaknesses can be found in such areas as field auditing, evaluation of industry management efficiency and productivity, part-time legal staff, staff education and training, public information, organized research capability and data processing capabilities.

The Public Service Commission is adequately carrying out its responsibility for enforcing Occupational Safety & Health Act (OSHA) regulations in the utility industry. However, there appears to be some question as to whether OSHA enforcement should be located in the Public Service Commission or the Department of Labor which may merit further consideration.

Recommendations:

1. *Alter the internal organization of the Public Service Commission by centralizing overall administrative responsibility under an executive director, responsible to the Commission.*

2. *Reorganize the staff structure of the Public Service Commission to reflect the functions of the Commission, with emphasis on rate design, economic analysis, research and planning, external coordination, compliance monitoring, field auditing, consumer complaints, hearing examiners, productivity auditing and internal administrative capacity, etc.*

3. *Salaries should be adjusted to retain and attract the most qualified personnel with due regard for special qualifications. Internal personnel policies should be examined to encourage upgrading of existing staff through evaluation, training, promotion, incentives and other modern personnel practices.*

4. Employ the legal staff of the Public Service Commission, including hearing examiners, on a full-time basis.

5. Repeal the statute requiring the Attorney General to assign an assistant attorney general to the Public Service Commission.

Dissenting on Conclusion only: (Milner, Rodes)

Conclusion #17: PUBLIC SERVICE COMMISSION BUDGET

The funding base of the Public Service Commision is inadequate to support an expanded program. Moreover, the current arrangement of supporting the Public Service Commission through assessments of the utilities has the potential to influence the policy orientation of the Public Service Commission.

Recommendations:

1. Review the funding base of the Public Service Commission in terms of 1) providing for expanded staff capacity as elsewhere recommended, 2) expanded use of outside expertise in carrying out economic and operational analysis that cannot be performed by internal staff, 3) improved record keeping capacity and staff support resources, 4) employment of adequate full-time legal counsel, and 5) hiring a qualified administrator as the Executive Director.

2. Repeal the statutory assessment of the utilities to support the Public Service Commission when practicable and appropriate all funding from the general fund.

3. The legislature should perform an annual and biennial management audit of the activities of the Public Service Commission.

Dissenting on Recommendation #1 only: (Coleman, Graves, Hill, Lake, Madison)

Conclusion #18: PUBLIC SERVICE COMMISSION COORDINATION ON ENERGY, ENVIRONMENTAL PROTECTION AND ECONOMIC DEVELOPMENT

There are numerous important relationships between the regulation of the electric utility industry and the State's responsibility for environmental protection, energy policy and economic development. Currently, communication and interchange between the Public Service Commission and state agencies responsible in their areas is insufficient, and few, if any, clear procedures exist to allow the Public Service Commission to use the information resources of these agencies.

Recommendations:

1. Encourage expanded coordination between the Public Service Commission and those State agencies responsible for environmental protection, energy policy and economic development. Periodically review the statutory provisions relating to coordination of related agencies and supplement as needed to assure continuing adequacy.

2. Supplement existing statutes covering this area to require the Public Service Commission to notify those agencies of all appropriate Public Service Commission hearings.

3. Establish procedures to enable the Public Service Commission to use the resources of other state agencies for support in its analysis of electric utility activities.

4. The Public Service Commission should be the final authority in all matters of energy policy which concern electricity.

Conclusion #19: POWER PLANT SITING

Environmental and other considerations involving the siting of new power generation facilities can become a serious problem in the ability of the utility industry to meet future electricity needs. Delays emanating from the regulatory maze having grown up around power plant siting can add years to the time required to bring new facilities on line and cost a vast sum of money.

In an effort to establish a more workable review and approval process, the 1974 legislature enacted a Power Plant Siting Act which attempts to rationalize the review process under the Public Service Commission. This act is an attempt to solve problems of site location; however, there has not been enough experience with its implementation and it should be carefully watched.

Recommendation:

1. The effectiveness of existing legislation (KRS Chapter 278) in assuring complete but expeditious environmental review of proposed new power plant sites should be carefully monitored by the Public Service Commission, with a report on its effectiveness presented to the 1978 session of the General Assembly.

Conclusion #20: MUNICIPALLY OWNED ELECTRIC UTILITIES

There has been considerable discussion about bringing the municipal utilities under Public Service Commission regulation. There are several issues relating to municipally-owned electric utilities which should have attention.

First, while most municipal electric rates appear to be in line with those of the other utilities, a few are substantially higher. This indicates, at least in part, that in a few cases municipal electric utilities' revenues are supporting other municipal functions in lieu of direct taxation. We find that this is unfair to customers residing outside the municipal boundaries and to the degree that it does not track cost of service is a matter which the municipals should correct. However, there is no practical way for the state to deal with the problem, except to place such utilities under direct regulation by the Public Service Commission.

Second, current data about municipal utilities needed for planning purposes are not readily available.

Third, customers outside the municipality's boundaries, who are served by the municipal system but do not vote in the municipality, have alleged rate discrimination. The potential for discrimination does exist.

Recommendations:

1. Continue to exempt municipal electric utilities from Public Service Commission jurisdiction except as indicated below:

2. Enact legislation requiring municipally owned electric utilities to submit appropriate reports to the Public Service Commission relating to their rates, finances, and operations.

3. The statutes should be revised to clearly require uniformity of rates within and outside the municipality; provided, those municipalities presently serving customers outside of their corporate limits have the option to discontinue service in such areas, provided service to affected customers is assumed by an adjacent supplier under conditions of due process. The power to determine and enforce the same standards of service outside the municipality's boundaries as it maintains inside should be vested in the Public Service Commission.

4. Enact legislation to require formal public hearings by the municipals on their tariff changes.

Abstaining on all parts: (Lake, Timmons)

Abstaining on #3 only: (Rodes)

Dissenting on #3 only: (Reeves, Tinder)

Conclusion #21: MUNICIPALITY OWNED GENERATING UTILITIES

Ernst & Ernst's Fuel Adjustment Clause Report comments on the awkwardness of the legally mandated fuel purchasing procedures of the municipally-owned generating utilities. They also discuss the limitations imposed by statute on the purchase of coal transportation equipment.

While laws governing competitive bidding were designed to safeguard the public's interest in the negotiation of contracts by governmental authorities, in this instance they may be detrimental. Amending the statutes could enable generating municipal utilities to lower the costs of fuel and, thus, bring savings to the affected rate payers; however, permitting them to operate as other generating utilities without comparable regulation would be difficult to justify.

Recommendation:

1. We have not studied all the legal ramifications sufficient to recommend that legislation be enacted. However, we do recommend that the Kentucky General Assembly study further whether the municipally-owned generating utilities should have the option of operating subject only to legal and regulatory requirements comparable to those applicable to regulated utilities.

APPENDIX C

GENERAL ASSEMBLY

COMMONWEALTH OF KENTUCKY

REGULAR SESSION 1976

HOUSE BILL NO. 842

MONDAY, MARCH 15, 1976

The following bill was reported to the Senate from the House and ordered to be printed.

AN ACT relating to the regulation of public utilities.

Be it enacted by the General Assembly of the Commonwealth of Kentucky:

Section 1. KRS 278.030 is amended to read as follows:

(1) Every utility may demand, collect and receive fair, just and reasonable rates for the services rendered or to be rendered by it to any person.

(2) Every utility shall furnish adequate, efficient and reasonable service, and may establish reasonable rules governing the conduct of its business and the conditions under which it shall be required to render service.

(3) Every utility may employ in the conduct of its business suitable and reasonable classifications of its service, patrons and rates. The classifications may, in any proper case, take into account the nature of the use, the quality used, the quantity used, the time when used, the purpose for which used, and any other reasonable consideration.

Section 2. KRS 278.040 is amended to read as follows:

(1) The public service commission shall regulate

utilities and enforce the provisions of this chapter. The commission shall be a body corporate, with power to sue and be sued in its corporate name. The commission may adopt a seal bearing the name "Public Service Commission of Kentucky," which seal shall be affixed to all writs and official documents, and to such other instruments as the commission directs, and all courts shall take judicial note of the seal.

(2) The jurisdiction of the commission shall extend to all utilities in this state. The commission shall have exclusive jurisdiction over the regulation of rates and service of utilities, but with that exception nothing in this chapter is intended to limit or restrict the police jurisdiction, contract rights or powers of cities or political subdivisions.

(3) The commission may adopt, in keeping with KRS Chapter 13, reasonable regulations to implement the provisions of KRS Chapter 278 and investigate the methods and practices of utilities to require them to conform to the laws of this state, and to all reasonable rules, regulations and orders of the commission not contrary to law.

Section 3. KRS 278.050 is amended to read as follows:

(1) The Public Service Commission shall consist of five (5) members appointed by the Governor with the

advice and consent of the Senate. If the Senate is not in session when a term expires or a vacancy occurs, the Governor shall make the appointment to take effect at once, subject to the approval of the Senate when convened. Each of the five members of said commission shall be appointed on or before March 1, 1976 for staggered terms as follows: two (2) shall serve until March 1, 1977, two (2) until March 1, 1978 and one (1) until March 1, 1979 and thereafter [1972,] for a term of four years and until a successor is appointed and qualified.

(2) The Governor shall appoint one of the commissioners to act as chairman of the commission and the chairman shall be the chief executive [administrative] officer of the commission. The Governor shall designate one of the commissioners to serve as vice chairman and act for the chairman in the latter's absence.

(3) Vacancies for unexpired terms shall be filled in the same manner as original appointments, but the appointee shall hold office only to the end of the unexpired term.

Section 4. KRS 278.060 is amended to read as follows:

(1) Each commissioner shall be a resident and qualified voter of this state, not less than twenty-five (25) years of age at the time of his appointment and qualification, and shall have resided in this state for

at least three (3) years prior to his appointment and qualification. Each commissioner shall take and subscribe to the constitutional oath of office, which shall be recorded in the office of the secretary of state.

(2) No person shall be appointed to or hold the office of commissioner who holds any official relationship to any utility, or who owns any stocks or bonds thereof, or who has any pecuniary interest therein.

(3) No commissioner shall receive any rebate, pass, percentage of contract or other thing of value from any utility.

(4) No commissioner shall engage in any occupation or business inconsistent with his duties as such commissioner.

(5) If any commissioner becomes a member of any political party committee, his office as commissioner shall be thereby vacated.

(6) In making appointments to the commission, the Governor shall consider the various kinds of expertise relevant to utility regulation and the varied interests to be protected by the commission, including those of consumers as well as utility investors, and not all members should be of the same occupation or profession.

Section 5. KRS 278.080 is amended to read as follows:

A majority of the commissioners shall constitute a

quorum for the transaction of any business, for the performance of any duty, or for the exercise of any power of the commission. No vacancy in the commission shall impair the right of the remaining commissioners to exercise all of the powers of the commission. Any investigation, inquiry, or hearing that the commission has power to undertake or hold may be undertaken or held, and the evidence therein taken, by any one or more commissioners or a hearing examiner designated for that purpose by the commission, and every finding, opinion or order made by the commissioner or commissioners or hearing examiner so designated shall, when approved or confirmed by the commission, become the finding, opinion or order of the commission.

Section 6. KRS 278.100 is amended to read as follows:

(1) The commission shall appoint an executive director and a secretary, who shall hold office during its pleasure and shall devote their [his] entire time to the duties of their offices [his office]. The executive director shall be selected on the basis of experience and training demonstrating capacity to deal with the problems of management and governmental regulation and knowledge relatable to utility regulation. The executive director shall be the chief administrative officer of the office of the commission and shall provide the staff direction

and coordination in implementing the program and discharging the duties of the commission. The secretary shall keep a full and true record of all the proceedings of the commission, of all books and papers ordered filed by the commission, and of all orders made by the commission or approved and confirmed by it and ordered filed, and shall be responsible to it for the safe custody and preservation of all such documents in its office. [Under the direction of the commission, the secretary shall have general charge of its office, superintend its clerical business and perform such other duties as the commission prescribes. He may administer oaths in all parts of the state, where the exercise of that power is properly incidental to the performance of his duties or those of the commission.]

(2) The commission shall designate from time to time staff persons to perform the duties of the executive director and secretary during their absence, and during the absence of either, the person so designated shall possess the same powers as their principal. [The secretary shall designate from time to time one (1) of the clerks appointed by the commission to perform the duties of the secretary during his absence, and during the absence of the secretary the clerk so designated shall, at the office, possess the same powers as the secretary.]

(3) The executive director with the approval of the

commission may assign the secretary additional administrative duties.

Section 7. KRS 278.110 is amended to read as follows:

The commission acting through the executive director may employ, [during its pleasure,] such clerks, stenographers, rate experts, agents, special agents, engineers, accountants, auditors, inspectors, lawyers, hearing examiners, experts and other classified service employes and the commissioner may contract for services of persons in a professional or scientific capacity to make or conduct a hearing or a temporary or special inquiry, investigation or examination as it deems necessary to carry out the provisions of this chapter, or to perform the duties and exercise the powers conferred by law upon the commission.

Section 8. KRS 278.120 is amended to read as follows:

(1) The chairman of the commission and each of the other four members shall be paid a salary fixed under KRS 64.640 to be paid monthly.

(2) The executive director and the secretary of the commission shall be paid a salary to be fixed by the commission, with the approval of the Governor. [The commission, with the approval of the Department of Personnel, shall fix the compensation of all its other

employes. The secretary of the commission and the commission's staff directors shall, as determined by the commission, assist the commissioners in carrying out policymaking functions under this chapter.]

(3) The commissioners, the executive director, [and] the secretary and employes of the commission are entitled to all expenses, including hotel bills, incurred in traveling on business of the commission.

(4) The salaries and expenses provided for by this section, and all other expenses of the commission incurred in the administration of this chapter, shall be paid out of appropriations as provided by law out of the general expenditure fund.

SECTION 9. A NEW SECTION OF KRS CHAPTER 278 IS CREATED TO READ AS FOLLOWS:

The commission by regulation shall organize its office for administration and management under the executive director to reflect its functions. The organization may be changed from time to time and may include division directors subject to the exemption from the classified service as provided in KRS 18-140(h).

Section 10. KRS 278.130 is amended to read as follows:

(1) For the purpose of maintaining the Public Service Commission, including the payment of salaries and all other expenses, and the cost of regulation of the

utilities subject to its jurisdiction, the Department of Revenue shall each year assess [the necessary amount upon] the utilities in proportion to their earnings or receipts derived from intrastate business in Kentucky for the preceding calendar year, and shall notify each utility on or before July 1 of the amount assessed against it. The total amount so assessed shall not in any year exceed one and one-half [one and one-fourth] mills on intrastate receipts, which shall be deposited into the state treasury to the credit of the general fund. The sum by each utility shall not be less than $50 in any one year.

(2) The assessments provided for in this section shall be in lieu of all other fees or assessments levied by any city or other political subdivision for the control or regulation of utilities.

Section 11. KRS 278.170 is amended to read as follows:

(1) No utility shall, as to rates or service, give any unreasonable preference or advantage to any person or subject any person to any unreasonable prejudice or disadvantage, or establish or maintain any unreasonable difference between localities or between classes of service for doing a like and contemporaneous service under the same or substantially the same conditions.

(2) Any utility may grant free or reduced rate

service to its officers, agents or employes, [including physicians and attorneys,] and may exchange free or reduced rate service with other utilities for the benefit of the officers, agents and employes of both utilities[, including their physicians and attorneys]. Any utility may grant free or reduced rate service to the United States, to charitable and eleemosynary institutions, and to persons engaged in charitable and eleemosynary work, and may grant free or reduced rate service for the purpose of providing relief in case of flood, epidemic, pestilence or other calamity. The terms "officers" and "employes," as used in this subsection, include furloughed, pensioned and superannuated officers and employes, and persons who have become disabled or infirm in the service of the utility. Notice must be given to the commission and its agreement obtained for such reduced rate service except in case of an emergency, in which case the commission shall be notified at least five (5) days after the service is rendered.

(3) The commission may determine any question of fact arising under this section.

Section 12. KRS 278.180 is amended to read as follows:

(1) Except as provided in subsection (2) of this section, no change shall be made <u>by any utility</u> in any rate except upon twenty (20) days' notice to the commis-

sion, stating plainly the changes proposed to be made and the time when the changed rates will go into effect. The commission may order a rate change only after giving an identical notice to the utility, and any aggrieved party petitioning within the period for a hearing shall be entitled thereto before said order is entered.

(2) The commission, upon application of any utility, may prescribe a less time within which a reduction of rates may be made.

Section 13. KRS 278.410 is amended to read as follows:

(1) Any party to a proceeding before the commission or any utility affected by an order of the commission may, within twenty (20) days after being served with the order, or within twenty (20) days after his application for rehearing has been denied by failure of the commission to act, or within twenty (20) days after being served with the final order on rehearing, when a rehearing has been granted, bring an action against the commission in the Franklin Circuit Court to vacate or set aside the order or determination on the ground that it is unlawful or unreasonable. Notice of the institution of such action shall be given to all parties of record before the commission.

(2) The answer of the commission shall be served and filed within twenty (20) days after service of the

complaint. The action shall then be at issue and stand ready for trial upon ten (10) days' notice to either party, on the equity side of the docket of the court. The answer need not deny verbatim the allegations of the petition, but a general denial thereof on behalf of the commission shall be sufficient.

(3) Injunctive relief may be granted by the circuit court in the manner and upon the terms provided by law.

SECTION 14. A NEW SECTION OF KRS CHAPTER 278 IS CREATED TO READ AS FOLLOWS:

The commission by regulation may prescribe the form and require the appropriate authorities annually to report data relating to rates, finances, and operations of municipally owned electric utilities.

SECTION 15. A NEW SECTION OF KRS CHAPTER 278 IS CREATED TO READ AS FOLLOWS:

(1) The rates charged for services by municipally owned electric utilities shall not be increased except after a public hearing following reasonable notice thereof.

(2) By January 1, 1978 the rates charged for services and the standards of services maintained by municipally owned utilities shall be the same for customers inside and outside the corporate limits.

Section 16. KRS 367.160 is amended to read as follows:

All departments, agencies, officers and employes of the Commonwealth shall fully cooperate with the Attorney General and the Division of Consumer Protection in carrying out the functions of KRS 367.110 to 367.300. The persons designated by the Attorney General as utility consumer intervenors shall have the same access to material evidence and information of the Public Service Commission relating to any case before it as other parties to the case.

Section 17. KRS 15.105 is amended to read as follows:

(1) The attorney general, with the approval of the head of the department or the commission involved shall appoint an Assistant Attorney General for the Department of Transportation, [for the Public Service Commission,] for the Department of Revenue, and for the Railroad Commission.

(2) The assistant attorneys general and additional attorneys provided for in subsection (1) of this section shall each be a person admitted to the practice of law by the Court of Appeals of this Commonwealth and shall qualify by taking the oath of office. They shall be paid out of the appropriation or other funds of the respective department or commission to which they are assigned.

Section 18. Whereas Section 3 of this Act requires an appointment to the Public Service Commission to be

made in March of 1976, an emergency is declared to exist and this Act shall become effective on passage and approval by the Governor.

APPENDIX D

INTERIM JOINT COMMITTEE ON PUBLIC UTILITIES AND TRANSPORTATION

Minutes of Second Meeting of 1976-78 Biennium

February 24, 1977

The second meeting of the Interim Joint Committee on Public Utilities and Transportation was held on February 24, 1977 in Room 327 of the State Capitol at 1:30 p.m.

Present were:

Members: Senator William L. Quinlan, Chairman; Representative Bill McBee, Vice-Chairman; Representatives Glenna A. Bevins, Donald J. Blandford, John Carpenter, Elmer C. Dietz, James Dunn, Jim LeMaster, Charles P. Muncy, Raymond Overstreet, Albert Robinson, Jimmy White and Dexter S. Wright; Senators Doug Moseley, Delbert S. Murphy, William L. Sullivan and Daisy Thaler.

Guest Speaker: Barkley Sturgill, Chairman of Public Service Commission.

Other Guests: A. F. Humphries, Dick Heman, Richard Powell, and William M. Sawyer, Kentucky Public Service Commission; Betty Wiseman, Public Information; Ralph Chace and Arthur S. Kling, Combined Commission on Aging; W. W. Renfroe, Kentucky Railroad Association.

LRC Staff: Brian Kiernan, Linda Kubala, Jim Roberts, William Hanes, Gay Trevino, Jim Peyton and Brenda Stivers.

Press: Robert San George, UPI; Maria Braden, AP.

Chairman Quinlan called the meeting to order, and the secretary called the roll. A quorum being present, the Chairman called for the approval of the minutes. A motion for the approval of the minutes was made by Representative Wright, seconded by Senator Murphy, and passed.

Chairman Quinlan then introduced the guest speaker, Mr. Barkley Sturgill from the Public Service Commission. Mr. Sturgill reported to the committee on actions taken to implement Governor Carroll's recommendations of March 8, 1976. His report closely followed a letter of August 10 from the Public Service Commission to Mr. James Gray, Secretary of the Cabinet for Public Protection and Regulation. The main points of Chairman Sturgill's report were as follows:

Industry Financing Needs and Long Range Planning. The Commission considers need, terms, and capital structure of any utility applying to assume new debt. The Commission

ensures that utilities under its jurisdiction maintain credit ratings that will permit the raising of necessary capital. It is convinced that the understanding of and financial support for long-range industry planning will continue provided the utilities maintain financial integrity and provide efficient service. Electric bills to Kentucky consumers are among the lowest in the nation.

Efficient Use of Generating Capacity and Load Management. The Commission is active both in ECAR and SERC, regional electric councils set up by the electric industry. In addition, the Commission must approve all new generating capacity, and requires projected load studies and environmental reports before authorizing construction. The Commission encourages companies to engage in Federal Energy Administration pilot programs on load management, but does not feel that load management is of major importance in Kentucky at this time.

Cost of Service, Model Tariff Structures. Cost of service studies are not routinely required, but uniform accounting information is filed with the Commission each year. The Governor requested consideration of lifeline rates, which bear no relation to cost of service. Since each utility has its own operating characteristics, adoption of a model tariff for all utilities would not be feasible or desirable.

Fuel Adjustment Clauses. Each fuel adjustment clause is reviewed by the Commission prior to approval, and is monitored each month. The Commission has revised clauses to make them precise and specific. All clauses are billed by kilowatt hour, and recovery lag has been minimized.

Notice of Rate Increases. A revised notice now is on file with the LRC.

Commission Procedures. Through the use of prepared testimony and employment of two hearing officers, the Commission has reduced the time lag for rate proceedings despite the increased number of cases. The Commission notifies other interested agencies of hearings, and has cooperated with agencies requesting information. An executive director will be hired within the next 30 days.

Questions by committee members emphasized the doubt of many citizens that utilities are efficiently managed or sufficiently regulated to provide services at the lowest possible cost to the consumer. Issues mentioned included advertising, bidding for coal, salaries and fringe benefits to utility employees, possible hidden profits or sweetheart contracts, opposition by utility interests to independent audits, and the feeling that utilities ask the PSC for rate increases which are much larger than needed. Chairman Sturgill reported that the PSC has the authority to regulate almost all aspects of utility operations, and looks at all

expenditures when considering a rate case. Two accountants are in the field at all times.

Mr. Sturgill reported that the additional funds appropriated by the 1976 General Assembly have allowed the PSC to hire additional staff, and the Commission now is able to handle adequately the increased work load, including the increase in sewer cases.

Chairman Quinlan then moved to the next order of business which was three communications. The first was a letter to LRC Director Philip Conn from Senator Clyde Middleton in regard to tax incentives for solar energy, which was referred to Representative Blandford's Energy Subcommittee for investigation and consideration. The second communication pertained to utilizing the staff to study and investigate recent sewer rate increases granted to package sewer plant operators in Jefferson County. Chairman Quinlan referred it to Senator Sullivan's Utilities Subcommittee. The third communication pertained also to the Utilities Subcommittee with a request that a hearing be held in Western Kentucky sometime about mid-April, and Chairman Quinlan also passed this on to Senator Sullivan.

Representative Dunn asked that LRC staff member, Jim Roberts, give a summary of the Transportation Subcommittee meeting that was held that morning.

Representative Dunn said that the Subcommittee was going to attempt, at a later date, to hold a meeting in Louisville with the people involved with the TARC system and to invite people connected with the Lexington and Northern Kentucky transportation systems to compare problems and try to arrive at some solutions.

Representative LeMaster asked that the Transportation Subcommittee check into the problem of the coal trucks causing damage to the roads in Bourbon County. He noted that Bourbon County is not entitled to coal severance tax money for the roads.

Chairman Quinlan announced that the next meeting would be March 31 with Damon Harrison, Commissioner of the Department of Energy, as guest speaker.

Representative Blandford moved for adjournment, seconded by Representative Wright and the meeting was adjourned at 3:15 p.m.

INTERIM COMMITTEE ON PUBLIC UTILITIES
AND TRANSPORTATION

Subcommittee on Public Utilities

Minutes of First Meeting of 1976-78 Biennium

April 18, 1977

The first meeting of the Subcommittee on Public Utilities was held on April 18, 1977 at the Old Coffee Shop, Kentucky Dam Village at 7 p.m. C.S.T.

Present were:

Members: Chairman William Sullivan; Representatives Jim LeMaster and James Yates.

Guests: Bayless Wadlington, Kentucky Utilities; Edwin L. Reid, Harvey Sanders, C. H. Arnett, Jackson Purchase Area RECC; Corinne Whitehead, Benton, Kentucky; Emma Gallimore, Gilbertsville, Kentucky; Martha Schlegel, Hopkinsville, Kentucky; Juanita Snipe, Benton, Kentucky; A. L. Shepherd, Danville, Kentucky; Mr. and Mrs. James Campbell and Mr. and Mrs. Reece Barrett, Jackson Purchase ECC; Mr. and Mrs. Robert Shelton, Paducah, Kentucky; Irene Yancy, Gilbertsville, Kentucky; Clifford and Ann Sheucroft, Gilbertsville, Kentucky; Howard Koenen, Murray, Kentucky; Leonard Vaughn, M. E. S., Murray, Kentucky; Marie Kuykendall, Gilbertsville, Kentucky; John W. Kuykendall, Gilbertsville, Kentucky; J. H. Swann, Gilbertsville, Kentucky; Bob Miller, Calloway County Judge; John Smith, Murray, Kentucky; Bill Fandrich, Murray, Kentucky; John West, Hickman, Kentucky; E. Buchheit, Kentucky Association of Electric Cooperatives; H. Timmons, Kentucky Association of Electric Cooperatives; L. Borgerding, Paducah Power Company; Representative J. R. Gray, Benton, Kentucky.

LRC Staff: Brian Kiernan and Linda Kubala.

Press: Mike Edgerly, WPAD Radio; Jayne Jeffery and Keith Todd, WPSD TV, and Charles L. Baccus, Herald Ledger.

Chairman Sullivan opened the meeting and briefly described the purpose of holding a hearing on electricity rates in Western Kentucky. He explained that Senate Resolution 49 directed a study of rising electricity rates, different rate structures, and the fuel adjustment charge. The Public Utilities Subcommittee is holding several meetings to obtain input from utility companies, consumers, and others on this subject. Testimony from these meetings will be used to prepare a report and recommendations to the 1978 General Assembly.

Four persons asked in advance to speak at the meeting. Chairman Sullivan first recognized Judge Bob Miller from

Calloway County. Judge Miller asked that the legislature require each Rural Electric Cooperative to file with the Public Service Commission their policies regarding extensions to resort developments. Chairman Sullivan stated that there is a current regulation covering extensions, but it allows some flexibility in detail. Mr. Jim Campbell, Manager of Jackson Purchase RECC described the policy of that cooperative and agreed that some differences exist between distributors.

Chairman Sullivan next recognized Ms. Corrine Whitehead of Benton, Kentucky. Ms. Whitehead stated that several thousand individuals have signed petitions for an investigation of the escallation of electric rates in the TVA region. In 1975, TVA sold about 6% of the nations's total electricity. Contracts for over-priced coal might be passed on to the consumer through fuel adjustment clauses. States should require utilities to use the cheapest fuel compatible with environmental requirements. The legislature should encourage the use of peak load pricing, and construction work in progress should not be allowed in the utility rate base. Consumers who have conserved energy should not be penalized by higher rates. The current rate structure gives large users cheaper rates.

Ms. Whitehead further stated that U. S. utilities import coal, and that TVA burns western coal, often at higher prices than paid for local coal. TVA prices increased 160% since 1969, compared with a 50% increase for Kentucky Utilities. The lowest income customers sometimes are faced with electric bills larger than their Social Security checks. Lifeline rates should be studied.

Ms. Whitehead expressed concern with the high interest rates being paid by TVA, and questioned a loan to Arch Minerals, which defaulted.

In response to questions, Ms. Whitehead stated that average bills for customers of Kentucky Utilities were lower than those served by TVA distributors. Coal buying policies of TVA have tended to favor large coal companies and put independents out of business.

Mr. LeRoy Borgerding of Paducah Power Company explained that it is cheaper to purchase low sulfur coal than to buy cheaper local coal and remove the sulfur.

Mr. Walter Smith of the Princeton Electric Plant Board stated that TVA rates are only about 60% of the national average.

The third scheduled speaker was Mr. James Campbell, General Manager of the Jackson Purchase Electric Cooperative. Mr. Campbell stated that of the 2.233 cents JPECC received per kilowatt in 1976, 57% was spent to purchase

wholesale power, 24% to cover operating expenses and 14% for fixed expenses, depreciation, taxes and interest. Over the past 9 years, the only increase has been in the amount paid for wholesale electricity.

The price of wholesale power is projected to increase nearly four times by 1985, which will raise the retail cost by about 250%. These increases are caused by the rising cost of fuel and capital, by construction delays, and by stricter environmental requirements.

Mr. Campbell reported the results of a survey made by the JPECC of electricity customers. Most respondents felt that current rate schedules are fair and reasonable. They felt they would be charged the same or more under a flat rate, and that off peak rates would not change their bills substantially. A majority opposed lower rates for the poor and elderly. Elderly respondents opposed lifeline rates by to 47 to 34 percent margin. Mr. Campbell stated that many high income people would qualify for low use lifeline rates, and many of the poor would not. He suggested that a lifeline rate should be administered by the government rather than by utility companies.

In the following discussion, Mr. Campbell stated that his company is served by Kentucky Utilities. The discussion covered installation of heat pumps, use of lifeline rates for conservation, extension policies, and high risks for serving seasonal or temporary houses.

Mr. Robert Shelton, a retired employee of TVA, stated that TVA is not paying as much for coal as distributors say in calculating the fuel adjustment clauses. Representatives from power distributors answered that the fuel adjustment charge is set by the wholesaler and monies received are returned to the wholesaler. TVA sets the retail rates charged by their distributors.

Mr. John West of Hickman-Fulton RECC was the 4th scheduled speaker. Hickman-Fulton buys power from TVA. The main reason for higher rates in Kentucky is the higher price of coal, which is used for 69% of TVA energy. The average cost of coal to TVA was $7.43 four years ago; now, it is $20.32. The Governor's Special Commission report found that cost of service should be the basis for rates; also Kentucky rates are among the lowest in the country. The Commission also studied and endorsed the use of fuel adjustment clauses.

Representative J. R. Gray asked about the penalties for late payment of electricity bills. This penalty differs between distributors, and is used to ease cash flow problems and to discourage habitual late payers. The cooperatives generally did not cut off power to consumers for non-payment during the cold winter.

A retired citizen questioned the deposits required of people who own homes. Mr. West explained the deposit policy and stated that interest is paid on deposits.

Mrs. Kuykendall of Gilbertsville complained of unfair discontinuance policies and irregular service.

Mrs. Snipe of Benton asked that consumer bills include the price per KWH and the amount of fuel adjustment charge, so that consumers could better understand their bills. She also stated that conservation often leads utilities to raise the unit price.

Chairman Sullivan asked about the economics of load management, and was told that this could save in the short run. For residences, peak load pricing requires expensive new meters. Educational programs to promote energy conservation did not have much effect during the 1973 crisis.

Environmental requirements were discussed. These requirements have lowered demand for high-sulfur coal in western Kentucky and Indiana, and stopped some projects designed to use local coal.

Mr. Shelton stated that TVA could lower rates with better management.

Mr. Thompson of Kentucky Power stated that many long-term, low-cost coal contracts simply were not kept and coal was not delivered.

Mrs. Snipe asked for an explanation of current rates, leading to a discussion of minimum charges, fuel adjustment formula, etc. Mr. Borgerding explained the formula used to calculate the fuel adjustment charges.

Chairman Sullivan adjourned the meeting at 9:30 p.m. C.S.T.

INTERIM JOINT COMMITTEE ON PUBLIC UTILITIES AND TRANSPORTATION

Minutes of Fourth Meeting of 1976-78 Biennium

June 9, 1977

The fourth meeting of the Interim Joint Committee on Public Utilities and Transportation was held on June 9, 1977 in Room 327 of the State Capitol at 1:30 p.m.

Present were:

Members: Senators William L. Quinlan, Chairman, Randall Donahue, Doug Moseley, Delbert S. Murphy, John Rogers, and William L. Sullivan; and Representatives Bill McBee, Donald J. Blandford, John Carpenter, James Dunn, Jim LeMaster, Albert Robinson, Jimmy White, Dexter Wright, and James Yates.

Guests appearing before the committee: Robert Stephens and Glenda Beard of the Attorney General's Office.

Other Guests: Stan Lampe and Wood Simpson, Kentucky Municipal League; Jay Burmer, Steve Rowland, Pete Oldham, Sandy Gubser, and Don Rouse, EDFA.

LRC Staff: Linda Kubala, Jim Roberts, Louise Johnson, Mark Watson, Paul Oakley and Richard Sims.

Press: Charles K. Pentecost, UPI; and Dan Adkin, Department of Public Information.

Chairman Quinlan called the meeting to order and the secretary called the roll. A quorum being present, the chairman called for the approval of the minutes. A motion for the approval of the minutes was made by Representative Wright and seconded by Senator Rogers. The minutes were adopted as they stood.

Chairman Quinlan introduced the first guest speaker, Attorney General Robert Stephens.

Mr. Stephens introduced Glenda Beard, Director of the Utility Division of the Office of the Attorney General. Mr. Stephens informed the committee that there was more and more pressure being put on his department of late, regarding public utilities. The basic function of the Utility Section of the Office of the Attorney General is to represent the public (consumers) before appropriate administrative and judicial bodies with regard to applications for rate increases by utilities and any other matters relating to utilities which the office deems appropriate.

Ms. Beard commented on rate intervention, stating that

all rate cases were analyzed in an effort to determine their reasonableness. The Commission is presented with briefs of the consumer's position on the issues and on the facts as they have been developed. All administrative and judicial remedies are exhausted on the consumer's behalf.

The first problem in any rate case is determining what level of revenues is fair to both utility company investors and to consumers. Looking into the efficiency of the utilities is one of the jobs of the Attorney General's office. Quality of service is another issue that is looked into regularly by the office. Another facet that the office is considering is rate design. Ms. Beard advocates that at the periods when usage is at its maximum, the consumer should be charged a higher rate and charged a lower rate at the off peak periods.

Operating expenses are generally more heavily litigated than revenues. Expenses may be passed on to the consumers through rates, but only if they are necessary, usual, reasonable and recurring.

During the question and answer period some of the information gathered was the price of a new plant, the rising of utility costs, measuring of peak load demands, uniform measures, and type of service in residential areas.

Ms. Beard was asked if she would favor the life-line rate to which she replied, that life-line electric rates hurt poor people, with poorly insulated, drafty homes. They cannot afford to insulate their homes to reduce their consumption. Attorney General Stephens commented that his office gets numerous complaints about fuel adjustment clauses.

The next portion of the agenda was a report from Linda Kubala on the electric utility rates study directed by Senate Resolution 61. The 1976 General Assembly passed a resolution asking that this committee look into the rising cost of electricity and consider different rate structures. There are several issues that are being studied by the staff as well as by the Subcommittee on Utilities. These include fuel adjustment clauses, utility expenditures for advertising or charity, sales tax, alternate rate structures such as time-of-day or life-line rates, and coal buying practices.

Following Ms. Kubala's report the committee discussed the possibility that consumers must subsidize poor utility business practices, and that utilities may in some cases be paying unnecessarily high prices for coal. Ms. Kubala stated that the PSC monitors all coal practices, but probably could not find small irregularities if they existed.

Senator Sullivan stated that it was brought out in the meeting held at Kentucky Dam Village that by 1985 utility

rates would be two and one-half (2 1/2) times what they are today. The two big things that are raising rates are increasing coal costs and EPA clean air requirements. TVA is making interest free loans to help people insulate their homes.

The next report was by Jim Roberts on the financing of transit authorities.

The report on Senate Resolution 13 is about 80 per cent complete and is now being typed. Mr. Roberts hopes that by July 1, it will be forwarded to the committee members as a preliminary draft. This study is based on an eighteen-state survey.

Next was a progress report by Richard Sims on a study of package sewage treatment plants in Jefferson County.

According to Mr. Sims, the study which is about half complete, seems to indicate that sewer rates have increased drastically since sewer plant operators came under the jurisdiction of the PSC. Part of the increase is attributable to increasing costs of plant operation but another part appears attributable to the PSC's providing a forum for rate requests that did not exist in the past. Whether the previous arrangement was better and whether we should return to it is now under study.

After Mr. Sims' report, a question and answer period ensued. The discussion centered around whether sewer bills and water bills should be separate or combined.

The next item on the agenda was subcommittee reports. Chairman Quinlan called on Senator Sullivan for his report on the Subcommittee on Utilities.

Chairman Sullivan informed the committee the next public hearing was on Tuesday, June 14, and would probably be the last public hearing that they would have. After July 1, they would meet to discuss recommendations and possible legislation.

Representative Blandford, chairman of the Subcommittee on Energy, informed the committee that his subcommittee was to be disbanded and its work turned over to the Special LRC Subcommittee on Energy.

He stated that he felt if this was going to be done, this committee should have been informed and that the members of the Subcommittee on Energy should have been placed on the new committee that was established.

There were questions as to the legality of the LRC being able to do this. It was decided that the General Assembly had given them the power to do this.

Representative Blandford made a motion to send a letter to the LRC stating the committee's displeasure with the disbandonment of the subcommittee asking that the subcommittee be made a part of the LRC Special Subcommittee. The motion was seconded by Representative Robinson and passed by voice vote.

Representative James Dunn was asked for his report on his Subcommittee on Transportation.

Representative Dunn informed the committee that his subcommittee had met earlier that day. He felt that much had been accomplished with the suggestions and recommendations that had been made which would be submitted to the full committee for approval.

Stan Lampe extended an invitation to the full committee to attend a Transit Seminar at the Galt House in Louisville on July 14, sponsored by the Kentucky Municipal League.

Chairman Quinlan moved that the committee attend the seminar and then hold its regular meeting at the Galt House in the afternoon. The motion was seconded and approved by the committee. There being no objections the next meeting was scheduled for 1:30 p.m. at the Galt House, July 14, in a room to be designated at a later date.

There being no further business before the committee the meeting was adjourned at 3:40 p.m.

INTERIM JOINT COMMITTEE ON
PUBLIC UTILITIES AND TRANSPORTATION

Subcommittee on Public Utilities

Minutes of Second Meeting of 1976-78 Biennium

June 14, 1977

The second meeting of the Subcommittee on Public Utilities of the Interim Joint Committee on Public Utilities and Transportation was held on June 14, 1977 at the Capitol, Frankfort, Kentucky in Room 327 at 2 p.m.

Present were:

Members: Senator William Sullivan, Chairman; Representatives Jim LeMaster, Bill McBee, Jimmy White, James B. Yates; and Senator John Rogers.

Guests Appearing Before the Committee: William B. Thurman, Vice-President, Louisville Gas and Electric Company; Pam Goldman, Staff Attorney, Appalachian Research and Defense Fund of Kentucky, Inc.; J. W. Bradley, Vice-President, Kentucky Utilities Company, Lexington; R. H. Breckenkamp, Planning Manager, East Kentucky Power Cooperative; David Vandeventer, Jefferson County Consumer Protection Division; H. E. Overcast and John L. Smith, Tennessee Valley Authority.

Other Guests: Harry Carloss, Kentucky Department of Energy; Eugene Mathews, Frankfort Electric and Water; Steve Doder, PSC; Dean Stanley, Green River Electric, Owensboro, Kentucky; Alton Porter, Farmers Rural Electric, Glasgow, Kentucky; Fred Reeves, Farmers RECC, Glasgow, Kentucky; R. L. Willhite, Kentucky Utilities Company, Lexington; R. B. Bibb, Kentucky Power Company; J. Buchheit, Kentucky Association of Electric Cooperatives; Col. Owens, Office of Kentucky Legal Services Programs; Frank Wermeling, ARDF.

LRC Staff: Linda Kubala, Jim Roberts, Louise Johnson, Mark Watson, and Paul Oakley.

Press: Ferrell Wellman, WAVE-TV; Dan Adkin, Department of Public Information; Rich Gimmel, WTVQ-TV; Charles K. Pentecost, UPI; Maria Braden, Associated Press.

Chairman Sullivan called the meeting to order and the secretary called the roll. There being a quorum present, the Chairman called for the approval of the minutes of the last meeting. A motion for the approval of the minutes as they stood was made by Representative LeMaster, seconded by Representative McBee, and adopted by voice vote.

Chairman Sullivan briefly explained the purpose of holding a hearing on electricity rates. He then introduced the first speaker, William Thurman of Louisville Gas & Electric Company.

Mr. Thurman stated that when one examines the cost-of-living index from 1945 to 1976 there has been an increase of 216 per cent. During the same period LG & E's average price of electricity decreased by 14 per cent. For a long time increased customer usage resulted in decreased cost. As economists put it, we have moved from a "decreasing cost" industry to an "increasing cost" industry. The cost of generating units has increased, but not the thermal efficiency. Coal prices, which were remarkably stable until recently, increased from $5.63 per ton in 1970 to $16.63 per ton today.

Mr. Thurman stated that other elements including regulations regarding personnel practices, new safety requirements imposed by OSHA, concerns over plant siting, and other environmental requirements also have increased costs.

The fuel clause reflects as accurately and promptly as possible changes in rates commensurate with changes in fuel costs. Mr. Thurman did not feel that fuel clauses lead to sloppy fuel purchase activities.

Mr. Thurman discussed several possible changes in rate structure. He stated that LG & E is open to consider such changes; however, changing the rate structure will only shift costs from one class of customers to another. It will not end the need for increases in electric rates.

The next speaker to appear before the committee was Pam Goldman, an attorney for the Appalachian Research & Defense Fund, Inc. Ms. Goldman spoke in behalf of the Kentucky Black Lung Association.

Ms. Goldman stated that since prices are likely to continue increasing we should look for rate structure solutions which make sense economically, ecologically and socially. Many poor families cannot afford even a slight increase in electricity costs.

Ms. Goldman stated that small customers now pay the highest rates. Detailed cost of service studies may show that flatter or lifeline rates are more equitable. Time of day or seasonable pricing may be desirable. Changes in the rate structure would be preferable to a utility stamp program.

Ms. Goldman concluded by stating that cost of service studies should begin as soon as possible so that legislation promoting fair and sensible rate structures can be developed.

Mr. Richard Breckenkamp of Eastern Kentucky Power Cooperative, Inc., was the next witness. Eastern Kentucky is strictly a wholesaler of electricity. He said major reasons for higher costs include the cost of coal, of construction, and of capital. Environmental regulations also add to cost. Flue desulfurization equipment would add $100 million to the cost of a megawatt unit built in 1982. Recently, construction of the Spurlock II unit was delayed six months by environmental groups. This delay cost East Kentucky Cooperative an estimated $102,547 per day.

Concerning rates, Mr. Breckencamp commented that he felt that emphasis must be placed on research and testing of alternative rate design concepts rather than immediate implementation. Industry representation in the process of research and testing is a necessity. Much more emphasis must be given to interpretation, evaluation, and acceptance of results from research projects in rate design.

The next witness was J. W. Bradley from Kentucky Utilities. Mr. Bradley informed the committee that increasing pressures on fuel costs (mine safety regulations, mine union contract negotiations), drastic increases in capital cost, and very expensive environmental regulations have all contributed to the company's cost increases. The cost of providing electric service can be divided into three components: customer costs, capacity costs, and energy costs. Mr. Bradley argued that the present declining block rate structure is based on these costs and is fair to all classes of customers. Inverted rate structures are not based on cost of service. Kentucky Utilities already employs certain types of peak load pricing and continues to evaluate such rates. Lifeline rates would subsidize one group of customers by another group; it would be better for the government to provide a direct subsidy through energy stamps.

Mr. Bradley explained that the fuel adjustment clause is part and parcel of the rate based on a formula related to the production efficiency of the system.

The next witness to appear before the committee was David Vandeventer of the Jefferson County Consumer Protection Division. Mr. Vandeventer informed the committee members that some consumers at the present time are paying more for electricity than they are paying for mortgage payments on their homes. He commented that he agreed with most of the other witnesses regarding the rising cost of fuel prices. Electricity is just receiving coal through a line. Mr. Vandeventer underscored the importance of overall cost of services to pinpoint problems and point to reasonable solutions.

After Mr. Vandeventer's report, he was asked about more efficient appliances. He replied that these appliances cost more initially, and that only a mandatory program would have any noticeable effect.

Chairman Sullivan next recognized Mr. John Smith and Mr. H. Edwin Overcast from the TVA, who stated that they would be happy to answer any questions from the committee.

Chairman Sullivan asked about the free loans that TVA is providing for the insulation of homes.

Mr. Smith answered that the program would begin in July. It will provide an auditor or a surveyor to go into the home of anyone who requests this, to help the homeowner estimate the need for insulation and the cost. Interest free loans apply only to attic insulation in homes that are electrically heated.

Kentucky Power Company submitted a statement to the committee prior to the meeting.

Chairman Sullivan thanked all the guests and asked committee members to study the material that had been provided so that they could bring recommendations to the next subcommittee meeting.

There being no further business before the committee, the meeting was adjourned at 5:15 p.m.

APPENDIX E

Table I-1 -- Structure of Total Costs for Privately Owned Electric Utilities, 1974

[Figures in parentheses indicate percentage of total costs. Does not add to 100 due to rounding.]

Type of Cost	Cost (1000$)	
Power Production		
Fuel	12,016,897	(32)
Purchased power	2,726,146	(7)
Other power production costs	962,384	(3)
Maintenance	1,160,497	(3)
Subtotal	16,865,924	(45)
Transmission	459,122	(1)
Distribution	1,652,824	(4)
Customer accounting and sales	983,523	(3)
Administrative and general	1,930,108	(5)
Total operation and maintenance Cost	21,891,501	(59)
Other (depreciation, amortization, taxes, other expenses) costs	8,242,210	(22)
Total operating costs	30,133,711	(81)
Utility operating income*	7,091,025	(19)
Total utility operating revenues	37,224,736	

*Includes interest and return on equity.

Source: FPC, Statistics of Privately Owned Electric Utilities in the United States, 1974.

TABLE 2-2
600 MW COAL FIRED UNIT
ESTIMATED COST - THOUSANDS OF DOLLARS

	1982		1984		1985	
	W/O FGD	WITH FGD	W/O FGD	WITH FGD	W/O FGD	WITH FGD
BOILER AND AUXILIARIES	72,225	74,392	81,152	83,587	86,021	88,602
TURBINE AND AUXILIARIES	24,435	25,168	27,455	28,279	29,102	29,975
ELECTRICAL EQUIPMENT	6,129	6,313	6,887	7,093	7,300	7,519
TRANSFORMERS	3,960	4,079	4,449	4,583	4,716	4,858
CONTROLS AND INSTRUMENTATION	4,239	4,366	4,763	4,906	5,049	5,200
STRUCTURAL STEEL AND BREECHING	29,700	30,591	33,371	34,372	35,373	36,434
MISC. MECHANICAL EQUIPMENT	48,105	49,548	54,051	55,672	57,294	59,013
MISC. STRUCTURAL EQUIPMENT AND MATERIALS	6,093	6,276	6,846	7,052	7,257	7,475
WATER SUPPLY AND TREATMENT	3,645	3,754	4,096	4,218	4,341	4,471
FLUE GAS DESULFURIZATION SYSTEM	-	66,000	-	74,158	-	78,607
ELECTRICAL CONSTRUCTION	14,904	15,351	16,746	17,248	17,751	18,283
MECHANICAL CONSTRUCTION	22,725	23,407	25,534	26,300	27,066	27,878
GENERAL CONSTRUCTION	48,060	49,502	54,000	55,620	57,240	58,958
SUBTOTAL	284,220	358,747	319,350	403,088	338,510	427,273
CONTINGENCIES 10%	28,422	35,875	31,935	40,309	33,851	42,727
TOTAL DIRECT COST	312,642	394,622	351,285	443,397	372,361	470,000
INDIRECT COSTS (ENGINEERING, AFDC. etc.)	65,655	82,871	73,770	93,113	78,196	98,700
TOTAL CAPITAL COST	378,297	477,493	425,055	536,510	450,557	568,700
COST PER M.W. $/M.W.	630	796	708	894	751	948

Notes:
W/O FGD means: without Flue Gas Desulfurization
With FGD means: with Flue Gas Desulfurization
AFDC means: Interest During Construction

SURVEY OF SCRUBBER OPERATION AND MAINTENANCE COSTS

OBJECTIVE

The objective of this appendix is to survey available sources of information to develop an estimate of the operation and maintenance costs of scrubber systems used for flue gas desulfurization (FGD).

ANALYSIS

The sources consulted in this survey are listed in the following paragraphs along with the information that was obtained.

1. A Black & Veatch client who has several years experience in the operation of a limestone scrubber on a large (larger than 500 MW) unit has experienced operation and maintenance costs (labor, materials, limestone) in the range of from less than 1 mill to approximately 1.5 mills per kWh, with average costs of less than 1.4 mills per kWh. The addition of operating energy costs (estimated at about 0.4 mills per kWh) would bring total scrubber O&M costs to approximately 1.8 mills per kWh.

2. A published report on Commonwealth Edison's Will County Unit 1 ["Operation of a Limestone Wet Scrubber" Chemical Engineering Progress Vol. 69, No. 6, June 1973] indicated O&M costs of approximately 1.9 mills per kWh. The report gave total scrubber charges of 42.4¢ per million Btu. Subtraction of capital charges and ad valorem taxes gives 19.5¢ per million Btu for scrubber O&M, which translates into approximately 1.9 mills per kWh.

3. A recent paper from TVA evaluates scrubber costs ["Flue Gas Desulfurization Economics" by McGlamery, et al., in Proceedings: Symposium on Flue Gas Desulfurization, EPA-600/2-76-136a, May 1976]. Total costs (capital plus O&M) for limestone scrubbers are estimated in this paper to range from 2.74 to 3.74 mills per kWh for large coal fired units. When the allowance for capital charges is deducted, the resultant median O&M costs are on the order of 2 mills per kWh.

4. An article by Vierath and Walkley of General Electric in the September 1976 issue of Power Engineering magazine ["Cost of meeting clean air requirements"] includes pertinent information. This article indicates scrubber O&M costs of 1.9 mills per kWh plus a differential annual O&M charge of $0.60 per kW for a plant with scrubbers versus one without. These costs combine to give an overall cost of approximately 2 mills per kWh.

CONCLUSIONS

It is concluded that 2 mills per kWh is the best estimate of current scrubber O&M costs and that values of 1 mill or 3 mills would represent extremes. The following tabulation represents the expected range of costs, as of 1976.

ESTIMATED FGD SCRUBBER O&M COSTS

	O&M Cost mills/kWh
Best estimate	2.0
Expected range of costs	1.5 - 2.5
Extreme values	1.0 - 3.0

APPENDIX F

PLEASE RETURN THIS QUESTIONAIRE TO: LINDA KUBALA, RESEARCH ANALYST, LEGISLATIVE RESEARCH COMMISSION, FOURTH FLOOR, STATE CAPITOL, FRANKFORT, KENTUCKY 40601.

1. How far will you extend lines at no cost to the developer, if at all?

2. If lines serving the development must be upgraded (example: three-phase lines), is this cost charged to the developer?

3. In addition to any extension costs, is the developer asked to place a deposit with your company? How much? When is this deposit returned?

4. After the extension has been made, how much money is returned to the developer (assuming that he paid part of the extension costs) for each additional customer connected during the year?

LEGISLATIVE RESEARCH COMMISSION
State Capitol Frankfort, Kentucky 40601 502-564-3136

Joe Prather, Senate President Pro Tem
William G. Kenton, House Speaker
Chairmen

Vic Hellard, Jr.
Director

May 11, 1977

Dear Sir:

At a recent meeting of the Public Utilities Subcommittee, a question was raised concerning extension policies of electric utilities as these relate to rural resort developments. The Public Service Commission regulations 807 KAR 2:050, Sections 10 and 11 cover the basic rules for making extensions; but these regulations allow some leeway, and do not specifically treat seasonal or resort developments. The concern was expressed that companies differ in their actual resort extension policies, which is confusing to developers working in more than one area.

I have been asked to find out the resort extension policies currently in effect, and would appreciate your help. Please answer the questions on the following page as precisely as possible; or send me a copy of your extension policy for resort development. I realize that the kind of development planned may influence your policy. So in answering the questions, assume that the developer plans to subdivide and sell lakeside or adjacent lots to individuals. Buyers may build permanent or seasonal homes, or place mobile homes on these lots.

If you do not have any extension policy for resort developments because there have been no such developments in your area, please let me know this as well.

Thank you very much for your help. If you have any questions, I will be glad to speak to you at 502-564-7426.

Sincerely,

Linda Kubala

Linda Kubala
Legislative Analyst
Public Utilities Subcommittee

LK/bks

SUMMARY OF RESPONSES TO QUESTIONNAIRE ON EXTENSION POLICIES FOR RESORT DEVELOPMENT

Utility	How far are lines extended free?	Is developer charged to upgrade service?	Is additional deposit required?	How are extension costs returned to the developer?
Harrison Co. RECC Cynthiana	1,000 ft.	No	No, but must sign 5 yr. contract	Refunded over ten-yr. period only if additional connections made on line. Refunds prorated based on amortization of customers investment over 10-yr. period. If service is discontinued for a period of 60 days, remainder of advance payment shall be forfeited.
West Ky. RECC Mayfield	Developer shall pay estimated cost of primary extensions		No	Refund each year for ten years for each lot of subdivision on which service to a permanent residence has been connected. Refund per service connected shall be the amount contributed by the developer divided by the total lots to be served from the extension.
Warren RECC Bowling Green	Developer will pay contribution for primary extnesions	If size of the development is such as to require existing single phase lines be converted to 3-phase, then this cost is included in the total cost of the installed facilities, & is refundable over a 10 yr. period.	No	Refund for 10 yrs. for each new connection to a residence of permanent construction. Refund is the amount contributed by the developer for the primary extension divided by the total lots to be served from the extension.

Utility	How far are lines extended free?	Is developer charged to upgrade service?	Is additional deposit required?	How are extension costs returned to the developer?
Salt River RECC Bardstown	Have no policy as such for resort development of this kind			
Nolan RECC Elizabethtown	No resorts under development, so no specific policy			
Kentucky Power Co.	No such developments in service territory, so no specific policy			
Jackson Purchase RECC Paducah	None for primary extensions	Yes	No	
Jackson County RECC McKee	1,000 ft. with 1 yr. contract, non-refundable charge for underground	Yes	Yes-approximately 2 times the average monthly bill. Returned with interest	Sum equal to 1,000 ft. of extension
Taylor Co. RECC Campbellsville	Unlimited free lines if permanent houses to be built; if temporary or mobile homes, 150' free	Have not had this situation-probably would not charge	No	NA
Green River Electric Corp Owensboro	No specific policy, as there have been no such development in area. Would apply general policies for residential or temporary/seasonal extensions if such development occurs.			
Hickman-Fulton Counties	No specific policy, as there have been no such developments in area			
Fox Creek RECC Lawrenceburg, Ky.	No specific policy, as there have been no such developments in area. Seasonal homes treated as temporary locations.			
Jellico Elec. & Water System	1,300 ft. for permanent residence;no free line to mobile or temporary homes	Would depend on the individual case, how much line must be upgraded	Make deposits, returned when all bills are paid	None

Utility	How far are lines extended free?	Is developer charged to upgrade service?	Is additional deposit required?	How are extension costs returned to the developer?
Farmer's RECC Glasgow	150 ft.	Depends on the distance, type and size of load to be served	No	Refunded in equal amounts 300-1,000 ft. - over 4 yrs.; 1,000 + ft. - over 10 years
Inter-County RECC Danville	1,000 ft. only for customers wanting overhead service	No Charge	No Deposit	1,000 ft./new customer
Bluegrass RECC Nicholasville	No specific resort policy. Use 807 KAR 2:050, 1,000 ft.	No charge to developer	$25 membership for each service	1,000 ft./new customer over 10 yrs. - comply with Sec. 10 paragraph (2) (b) and (3)(4)(5)
South Kentucky RECC Somerset	May be required to pay full cost, refunded after 12 mo. at rate of 1,000 ft. per new customer connected	Not if caused by definate load added by developer	$25 membership for each account listed in his name (individual deposit)	1,000 ft. per customer over 10 years
Louisville Gas & Electric	No such development. However, LG&E extends 1,000 ft. of line free only to customers who take year round service.			
Grayson RECC	No specific policy;would use 807 KAR 2:050			
Kentucky Utilities	None, assuming utility facilities are requested prior to customer load development.	If facilities must be upgraded to meet customers capacity requirement, this will be done at company expense. If 3-phase equipment is selected by the customer as matter of economics, additional cost will be at customers expense.	No	For each customer connected directly to extension paid for by developer: refund cost of 1,000 ft., based on average cost per ft. of total line constructed. Such refunds, when applicable, would be made only during first 10 yrs. after line const., & would not exceed amt. pd. by developer.

Utility	How far are lines extended free?	Is developer charged to upgrade service?	Is additional deposit required?	How are extension costs returned to the developer?
Fleming-Mason RECC Flemingsburg	Do not have a specific resort extension policy			
Clark RECC Winchester	Do not have a specific resort extension policy			

APPENDIX G

Excerpt from the Administrative Regulation 807 KAR 2:050, dealing with Extensions of Electric Service.

Section 10. Distribution Line Extensions. (1) Normal Extensions. An extension of 1,000 feet or less shall be made by a utility to its existing distribution line without charge for a prospective customer who shall apply for and contract to use the service for one (1) year or more and provides guarantee for such service. The "service drop" to the house from the distribution line at the last pole shall not be included in the foregoing measurements.

(2) Other Extensions:

(a) When an extension of the utility's line to serve an applicant or group of applicants amounts to more than 1,000 feet per customer, the utility may if not inconsistent with its filed tariff require the total cost of the excessive footage over 1,000 feet per customer to be deposited with the utility by the applicant or applicants, based on the average estimated cost per foot of the total extension.

(b) Each customer receiving service under such extension will be reimbursed under the following plan: Each year for a period of not less than ten (10) years, which for the purpose of this rule shall be the refund period, the utility shall refund to the customer or customers who paid for the excessive footage the cost of 1,000 feet of the extension in place for each additional customer connected during the year whose service line is directly connected to the extension installed and not to extensions or laterals therefrom, but in no case shall the total amount refunded exceed the amount paid the utility. After the end of the refund period no refund will be required to be made.

(3) An applicant desiring an extension to a proposed real estate subdivision may be required to pay the entire cost of the extension. Each year for a period of not less than ten (10) years the utility shall refund to the applicant who paid for the extension a sum equivalent to the cost of 1,000 feet of the extension installed for each additional customer connected during the year, but in no case shall the total amount refunded exceed the amount paid to the utility. After the end of the refund period from the completion of the extension no refund will be required to be made.

(4) Nothing contained herein shall be construed as to prohibit the utility from making extensions under different arrangements provided such arrangements have been approved by the commission.

(5) Nothing contained herein shall be construed as to prohibit a utility from making at its expense greater extensions than herein prescribed, should its judgment so dictate, provided like free extensions are made to other customers under similar conditions.

(6) Upon complaint to and investigation by the commission, a utility may be required to construct extensions greater than 1,000 feet upon a finding by the commission that such extension is reasonable.

Section 11. Distribution Line Extensions to Mobile Homes. (1) All extensions of up to 150 feet from the nearest facility shall be made without charge.

(2) Extensions greater than 150 feet from the nearest facility and up to 300 feet shall be made provided the customer shall pay the utility a "customer advance for construction"] of fifty dollars ($50) in addition to any other charges required by the utility for all customers. This advance shall be refunded at the end of one (1) year if the service to the mobile home continues for that length of time.

(3) For extensions greater than 300 feet and less than 1,000 feet from the nearest facility, the utility may charge an advance equal to the reasonable costs incurred by it for that portion of the service beyond 300 feet plus fifty dollars ($50). Beyond 1,000 feet the extension policies set forth in Section 10 apply.

(a) This advance shall be refunded to the customer over a four (4) year period in equal amounts for each year the service is continued.

(b) If the service is discontinued for a period of sixty (60) days, or should the mobile home be removed and another not take its place within sixty (60) days, or be replaced by a permanent structure, the remainder of the advance shall be forfeited.

(c) No refunds shall be made to any customer who did not make the advance originally.

(4) All utilities which have mobile home rules on file which differ from the provisions set out above shall within ninety (90) days after the effective date of this regulation file revised regulations complying with the above provisions.

Legislative Research Commission, *1976 Kentucky Administrative Regulation Service*, Vol. 3, 807 KAR 2:050, pp. 40-41.